

Graduate Students and Postdoctorates in Science and Engineering

Fall 1997

Detailed Statistical Tables

Joan Burrelli, Project Officer

Division of Science Resources Studies
Directorate for Social, Behavioral, and Economic Sciences
National Science Foundation



February 1999

Graduate Students and Postdoctorates in Science and Engineering

Fall 1997

Detailed Statistical Tables

Division of Science Resources Studies
Directorate for Social, Behavioral, and Economic Sciences
National Science Foundation



February 1999

National Science Foundation

Rita R. Colwell

*Director***Directorate for Social, Behavioral, and Economic Sciences**

Bennett I. Bertenthal

*Director***Division of Science Resources Studies**

Jeanne E. Griffith

Director

Ronald S. Fecso

*Chief Statistician***Human Resources Statistics Program**

Mary J. Golladay

*Program Director***DIVISION OF SCIENCE RESOURCES STUDIES**

The Division of Science Resources Studies (SRS) fulfills the legislative mandate of the National Science Foundation Act to ...

provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources and to provide a source of information for policy formulation by other agencies of the Federal Government...

To carry out this mandate, SRS designs, supports, and directs periodic surveys as well as a variety of other data collections and research projects. These surveys yield the materials for SRS staff to compile, analyze, and disseminate quantitative information about domestic and international resources devoted to science, engineering, and technology.

If you have any comments or suggestions about this or any other SRS product or report, we would like to hear from you. Please direct your comments to:

National Science Foundation
Division of Science Resources Studies
4201 Wilson Blvd., Suite 965
Arlington, VA 22230
Telephone: (703) 306-1780
Fax: (703) 306-0510
email: srsweb@nsf.gov

Suggested Citation

National Science Foundation, Division of Science Resources Studies, *Graduate Students and Postdoctorates in Science and Engineering: Fall 1997*, NSF 99-325, Project Officer, Joan Burrelli (Arlington, VA 1999).

February 1999

SRS data are available through the World Wide Web (<http://www.nsf.gov/sbe/srs/stats.htm>). For more information about obtaining reports, contact pubs@nsf.gov or call (301) 947-2722. For NSF's Telephonic Device for the Deaf, dial (703) 306-0090.

CONTENTS

<i>Section</i>	<i>Page</i>
GENERAL NOTES	1
TECHNICAL NOTES	3
DETAILED STATISTICAL TABLES	27
SURVEY MATERIALS	139
LIST OF DOCTORATE-GRANTING AND MASTER'S-GRANTING INSTITUTIONS	149
GETTING INFORMATION ON THE WORLD WIDE WEB	
ORDER FORM	

GENERAL NOTES

Data presented in these tables are derived from the fall 1997 National Science Foundation/National Institutes of Health (NSF/NIH) Survey of Graduate Students and Postdoctorates in Science and Engineering. Unless otherwise specified, the published data represent estimates of total enrollment in science and engineering (S&E) programs in approximately 11,597 graduate departments at 601 institutions in the United States and outlying areas.

NSF has collected data on graduate enrollment and postdoctoral employment since 1966. Note, however, that these data were collected on a limited or sample basis from 1984 through 1987 (see Technical Notes for further information). Beginning in 1988, all eligible institutions were included in the survey.

In 1992, the citizenship categories requested were modified to conform to those used in other surveys conducted by NSF and the National Center for Education Statistics, among others. Previously, permanent residents (those who held green cards but had not yet been granted U.S. citizenship) were included in the "Foreign" category; after 1992, these individuals were included in the "U.S. citizens" total and reported according to racial/ethnic background.

For these reasons, and because institutions may revise their data for earlier years, only the latest trend data should be used in historical analyses.

Tables showing data on source or mechanism of support refer only to primary (that is, largest) source or mechanism of support.

For further information on the survey, please contact:

Joan Burrelli, Project Officer
Science and Engineering Education
and Human Resources Statistics Program
Division of Science Resources Studies
National Science Foundation
4201 Wilson Boulevard, Suite 965
Arlington, VA 22230

Telephone: (703) 306-1774, ext. 6942
Fax: (703) 306-0510
E-mail: jburrell@nsf.gov

TECHNICAL NOTES¹

SURVEY UNIVERSE

The data collected in the fall 1997 Survey of Graduate Students and Postdoctorates in Science and Engineering represent national estimates of graduate enrollment and postdoctoral employment at the beginning of academic year 1997–98 in all academic institutions in the United States that granted doctorate or master's degrees in any science or engineering field. Included are data for all branch campuses, affiliated research centers, and separately organized components such as medical or dental schools, schools of nursing, public health, etc. The survey universe consisted of 723 reporting units at 601 graduate institutions. Included were 251 master's-granting institutions and 472 reporting units associated with 350 doctorate-granting institutions.

The National Science Foundation (NSF) has collected data on graduate science and engineering (S&E) enrollment and postdoctoral appointees since 1966. From fall 1966 through fall 1971, data from a limited number of doctorate-granting institutions were collected through the NSF Graduate Traineeship Program, which requested data only on those S&E fields supported by NSF. Beginning with the fall 1972 survey, this data collection effort was assigned to NSF's Universities and Nonprofit Institutions Studies Group and was gradually expanded from 1972 to 1975 to include additional S&E fields as well as all institutions known to have programs leading to a master's or doctoral degree. Due to this expansion, data for 1974 and earlier years are not strictly comparable with 1975 and later data. Technical table 1 shows the number of institutions, reporting units, and departments at each level included in the data, as well as the total enrollment reported for each year between 1966 and 1997. No attempt has been made to inflate the data for 1966–74 to reflect universe totals.

Beginning with the 1984–85 academic year, master's-granting institutions were surveyed on a sample basis. From 1984 through 1987 the survey design was a stratified random sample, with all doctorate-granting institutions, all master's-granting historically black colleges and universities, and all land-grant institutions included in the certainty stratum. The remaining master's-granting institutions were divided into two sample strata on the basis of enrollment size. Data for sampled institutions

for the years 1984–87 were reestimated in 1988 on the basis of 1983 and 1988 data. During the 1989 survey cycle, S&E field definitions were reviewed and some departments were deleted. Data for 1975 through 1988 were adjusted to conform to the revised definitions.

The fall 1988 survey included the entire survey population for the first time since 1983–84. Since 1988, any institutions starting up S&E master's or doctoral programs have been added to the survey universe, and any that have closed all their S&E graduate programs have been deleted. (See Survey Methodology, below.)

Technical tables 2 and 3 present data on departmental coverage by S&E field for doctorate- and master's-granting institutions for the last 8 years surveyed.

SURVEY INSTRUMENTS

The survey questionnaire on which data were reported in fall 1997 was identical to that used in fall 1996. In addition to the questionnaire proper, each survey package also included the following:

- an enclosure detailing mailing package contents;
- a flyer explaining NSF's academic S&E surveys;
- cover letter to survey coordinators at graduate schools or at medical schools;
- cover letter to departmental respondents;
- a computer-generated List of Departments or Programs (NSF Form 811) specific to each institution surveyed and based on the departments known to exist in the previous survey cycle;
- a "crosswalk" showing National Center for Education Statistics instructional program codes corresponding to each S&E field as defined by NSF;
- a "How To Avoid Common Survey Errors" sheet with guidelines for avoiding the most common mistakes made in the graduate student survey; and
- a postcard for respondent use acknowledging receipt of the survey and indicating any changes in coordinator name, address, telephone number, or e-mail address.

SURVEY METHODOLOGY

The survey packages were mailed out by November 30, 1997. The final survey universe consisted of 723 reporting units at 601 institutions.

¹ See <http://www.nsf.gov/sbe/srs/sgss/start.htm> for a more detailed discussion of the methodology used in this survey.

In addition to the verification information cited above, the acknowledgment postcard also requested that institutional coordinators indicate how the data were collected, whether the data were maintained centrally or collected from individual departments, and whether they were derived from a computerized database or hand tabulated. Of the 723 reporting units surveyed, 98 percent have provided this information over the past 9 years. The majority of schools report a combination of sources for their data. Over the years, the use of computerized systems has shown a gradual but small increase, while the use of hand tabulation has slowly decreased.

Institutional coordinators were asked to review the departmental listing provided in the survey packet and to indicate any changes in their departmental structure such as departments newly formed, phased out, split, or merged; they were also asked to check off any departments that had neither graduate students nor postdoctorates and for which survey questionnaires would therefore not be submitted. The revised Form 811s were returned to NSF's data processing contractor for use as a checklist in tracking departmental responses.

A survey questionnaire was completed for each department either centrally or at the department level and was returned to the data processing contractor for data entry, editing, and tabulation. Arithmetic errors, inconsistencies between items, and sharp year-to-year fluctuations were referred to the institutional coordinators for correction or clarification.

RESPONSE RATE

Of the 723 reporting units included in the fall 1997 survey, 712—or 98.5 percent—were able to provide at least partial data, distributed as follows:

At the departmental level, 11,404 departments responded, or 98.3 percent of the 11,597 departments surveyed. Of these, 9,720 departments, or 83.8 percent of the total, provided complete responses. A total of 212 departments, or 1.8 percent of the departmental total, required complete imputation; 1,665, or 14.4 percent, had one or more data cells imputed. Technical table 4 presents the department response rates for earlier years for comparison.

Missing data for partially nonrespondent departments were imputed using the departments' previous year's data, where available, or data from peer institutions in cases where data had not been reported the previous year. Data

for nonrespondent departments (those that did not provide any data) were imputed using data from the previous year, where available. The number of departments in doctorate- and master's-granting institutions that required total or partial imputation, and the numbers and proportions of full- and part-time graduate students and postdoctorates imputed, are shown in technical tables 5 and 6. Imputation rates by survey data item are provided in technical table 7.

CHANGES IN DATA ITEMS

Although NSF has attempted to maintain consistent trend data, some modifications in the survey questionnaire have been made to respond to changing issues over the past 25 years. As a result, some data items are not available for all institutions in all years.

Major changes in the data collected are as follows:

- From 1975 through 1977, data for master's-granting institutions were collected on a short form (i.e., an abbreviated form of the survey) that did not collect data on sex or citizenship of graduate students, nor any data on postdoctoral appointees. In 1978, a similar questionnaire was sent to doctorate-granting institutions; master's-granting institutions were not surveyed that year. This 1978 questionnaire did not collect data on mechanisms of support for full-time students. All mechanisms of support data for that year were combined on one line and appear as "other types of support" in any data tables. The 1978 figures shown in the tables for master's-granting institutions represent estimates based on 1977 and 1979 data. Beginning in 1979, the full-scale survey form was sent to both doctorate- and master's-granting institutions.
- Distribution by sex was originally requested only for full-time graduate students at doctorate-granting institutions. Beginning in 1976, master's-granting institutions were also asked to provide data on all graduate students by sex; in 1977, similar data were requested for all graduate students in all institutions. The short form used in 1978 did not request any information on sex; figures in the tables represent estimates based on 1977 and 1979 data.
- Citizenship data were collected only for graduate students enrolled full time in doctorate-granting institutions through 1977. No citizenship data were requested on the short form used for master's-granting institutions in 1975 through 1977 and for doctorate-granting institutions in 1978. Data on citizenship of

- all full-time graduate students are available beginning in 1979 and on those enrolled part time since 1983.
- Racial/ethnic data were first requested in 1979 and became a standard item on the questionnaire in 1980.
 - The support mechanisms of “fellowships and traineeships” were combined on one line until 1979, when separate data on the two mechanisms were first collected.
 - “Other nonfaculty research staff with doctorates” were combined with postdoctoral appointees until 1979.
 - Separate data on students receiving their primary support from the U.S. Department of Agriculture were first requested in 1985.
 - Racial/ethnic data by sex were first requested in 1993 and became a standard item on the questionnaire in 1994.
 - Separate data on students receiving their primary support from the National Aeronautics and Space Administration were first requested in 1996.

DATA REVISIONS

During the fall 1988 survey cycle, the criteria for including departments in the survey universe were tightened, and all departments surveyed were reviewed. Those departments not primarily oriented toward granting research degrees were no longer considered to meet the definition of science and engineering. As a result of this review, it was determined that a number of departments—

primarily those in the field of “Social sciences, not elsewhere classified,”—were engaged in training primarily teachers, practitioners, administrators, or managers rather than researchers; these departments were deleted from the database. This process was continued during the 1989–97 survey cycles and expanded to ensure trend consistency for the entire 1975–97 period. As a result, total enrollments and social science enrollments for all years were reduced. The net effect of adjustments over the years is shown in technical table 8.

During the same period, the survey methodology changed so that the institution’s highest S&E degree in the current year would apply to all previous years in which that institution was surveyed. Since a number of master’s-granting institutions have become doctorate-granting institutions over the years, the result has been a smaller decrease in enrollment at doctorate-granting institutions than at master’s-granting institutions. For the years 1975–76 and 1991–92, there was an increase in enrollment at doctorate-granting institutions after subsequent year modifications.

The definition of medical schools was revised during the fall 1992 survey cycle to include only those institutional components that are members of the Association of American Medical Colleges. Tables generated after the fall 1992 survey differ from their counterparts in earlier years in that they exclude schools of nursing, public health, dentistry, veterinary medicine, and other health-related disciplines; they should not be compared with tables from earlier years.

LIST OF TECHNICAL TABLES

<i>Table</i>	<i>Page</i>
1. Survey universe and reported enrollment totals for NSF's historic data collection series on science and engineering graduate students	9
2. Number of science, engineering, and health departments in doctorate-granting institutions, by detailed field: 1990–97	11
3. Number of science, engineering, and health departments in master's-granting institutions, by detailed field: 1990–97	13
4. Departmental response rates: 1975–97	15
5. Imputation for nonresponse in doctorate-granting institutions, by field and enrollment status: 1995-97	16
6. Imputation for nonresponse in master's-granting institutions, by field and enrollment status: 1995-97	17
7. Imputation rates for all departments at all graduate institutions: fall 1997	18
8. Comparison of graduate enrollment data as originally published and as modified through the fall 1997 graduate student survey cycle: 1975-97	19

Technical Table 1. Survey universe and reported enrollment totals for NSF's historic data collection series on science and engineering graduate students

Page 1 of 2

Year	Number of institutions surveyed	Number of reporting units surveyed	Number of departments surveyed			Graduate enrollment in surveyed fields		
			Total	Master's	Doctorate	Total	Full-time	Part-time
A. Graduate Traineeship Program								
1966	204	204	2,866	441	2,425	169,303	124,255	45,048
1967	209	209	3,014	434	2,580	179,622	133,972	45,650
1968	219	219	3,190	454	2,736	184,759	140,714	44,045
1969	224	224	3,354	460	2,894	196,341	147,515	48,826
1970	227	227	3,544	473	3,071	201,918	153,250	48,668
1971 ¹	224	249	3,397	407	2,990	214,680	164,764	49,916
B. Survey of Graduate Students and Postdoctorates in Science and Engineering²								
Doctorate institutions:								
1972	260	328	4,593	780	3,813	210,895	161,329	49,566
1973	259	336	6,538	859	5,679	214,459	161,582	52,877
1974	280	370	7,485	1,398	6,087	260,312	190,665	69,647
1975	328	425	7,917	1,737	6,180	295,550	207,450	88,100
1976	337	435	8,011	1,790	6,221	299,724	211,227	88,497
1977	338	440	8,225	1,909	6,316	307,473	213,269	94,204
1978	316	425	8,189	1,798	6,391	300,482	209,107	91,375
1979	354	470	8,465	1,974	6,491	316,633	217,437	99,196
1980	353	469	8,568	2,020	6,548	326,147	223,620	102,527
1981	351	465	8,492	2,016	6,476	332,698	227,418	105,280
1982	348	463	8,347	2,000	6,347	339,123	230,458	108,665
1983	347	462	8,222	1,963	6,259	345,909	236,389	109,520
1984	335	454	8,220	1,928	6,292	348,277	237,444	110,833
1985	335	449	8,332	1,967	6,365	357,748	241,059	116,689
1986	335	451	8,406	1,979	6,427	368,366	249,763	118,603
1987	339	457	8,519	1,981	6,538	373,873	254,307	119,566
1988	352	471	8,771	2,071	6,700	379,454	259,698	119,756
1989	353	472	8,894	2,085	6,809	386,779	266,818	119,961
1990	352	471	9,034	2,127	6,907	400,371	275,433	124,938
1991	352	471	9,227	2,146	7,081	415,509	287,809	127,700
1992	352	471	9,465	2,194	7,271	434,505	301,772	132,733
1993	352	471	9,655	2,204	7,451	442,512	307,693	134,819
1994	351	470	9,864	2,259	7,605	442,915	309,329	133,586
1995	350	469	10,040	2,311	7,729	437,217	305,659	131,558
1996	351	470	10,054	2,360	7,694	431,694	304,234	127,460
1997	350	472	10,018	2,422	7,596	424,650	301,573	123,077

See explanatory information, if any, and SOURCE at end of table.

Technical Table 1. Survey universe and reported enrollment totals for NSF's historic data collection series on science and engineering graduate students

Page 2 of 2

Year	Number of institutions surveyed	Number of reporting units surveyed	Number of departments surveyed			Graduate enrollment in surveyed fields		
			Total	Master's	Doctorate	Total	Full-time	Part-time
Master's institutions:								
1975 ³	258	258	1,088	1,088	N/A	33,000	12,237	20,763
1976	259	259	1,101	1,101	N/A	34,031	12,219	21,812
1977	265	265	1,169	1,169	N/A	37,943	13,507	24,436
1978 ⁴	284	284	1,322	1,322	N/A	39,430	13,923	25,507
1979	277	277	1,224	1,224	N/A	40,976	14,353	26,623
1980	275	275	1,233	1,233	N/A	40,964	14,828	26,136
1981	273	273	1,239	1,239	N/A	42,460	14,658	27,802
1982	263	263	1,240	1,240	N/A	43,211	14,338	28,873
1983	263	263	1,248	1,248	N/A	44,565	15,666	28,899
1984 ⁵	77	77	573	573	N/A	46,393	16,478	29,915
1985 ⁵	77	77	581	581	N/A	46,273	16,228	30,045
1986 ⁵	77	77	582	582	N/A	47,176	16,419	30,757
1987 ⁵	77	77	588	588	N/A	47,639	16,759	30,880
1988	254	254	1,248	1,248	N/A	45,159	15,496	29,663
1989	256	256	1,297	1,297	N/A	47,788	15,901	31,887
1990	258	258	1,328	1,328	N/A	51,807	17,397	34,410
1991	257	257	1,375	1,375	N/A	55,753	19,231	36,522
1992	256	256	1,414	1,414	N/A	59,127	20,837	38,290
1993	254	254	1,458	1,458	N/A	61,937	21,986	39,951
1994	254	254	1,512	1,512	N/A	61,627	22,800	38,827
1995	253	253	1,538	1,538	N/A	62,515	23,489	39,026
1996	252	252	1,538	1,538	N/A	62,525	24,219	38,306
1997	251	251	1,579	1,579	N/A	62,454	25,269	37,185

1 The 1972 survey also collected selected data for 1971.

2 The name of the survey was changed in 1981 to specify the inclusion of engineering.

3 The 1976 survey also collected 1975 data from master's-granting institutions.

4 Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

5 Master's-granting institutions were surveyed on a sample basis from 1984 through 1987.

KEY: N/A = Not applicable

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 2. Number of science, engineering, and health departments
in doctorate-granting institutions, by detailed field: 1990-97**

Page 1 of 2

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	9,034	9,227	9,465	9,655	9,864	10,040	10,054	10,018
Total, science and engineering fields	6,519	6,671	6,826	6,918	7,057	7,177	7,171	7,176
Sciences, total	5,281	5,395	5,513	5,583	5,686	5,780	5,760	5,744
Physical sciences, total	550	558	563	566	567	576	570	571
Astronomy	33	33	33	34	34	35	35	35
Chemistry	265	267	268	268	266	267	267	267
Physics	238	245	247	249	252	254	250	253
Physical sciences, n.e.c.	14	13	15	15	15	20	18	16
Earth, atmos., & ocean sci., total	309	321	323	327	336	350	347	349
Atmospheric sciences	28	29	29	31	32	33	33	32
Geosciences	194	202	203	203	207	211	211	208
Oceanography	42	45	45	45	46	50	48	49
Earth, atmos., & ocean sci., n.e.c.	45	45	46	48	51	56	55	60
Mathematical sciences, total	362	368	375	381	388	393	393	390
Mathematics & applied mathematics	295	299	300	304	308	312	311	309
Statistics	67	69	75	77	80	81	82	81
Computer sciences	235	242	253	256	263	274	281	283
Agricultural sciences	295	303	315	312	318	324	318	328
Biological sciences, total	1,832	1,874	1,913	1,958	1,985	2,000	1,980	1,951
Anatomy	107	106	105	104	104	101	100	96
Biochemistry	183	187	190	190	191	192	191	191
Biology	237	235	237	236	235	235	237	243
Biometry/epidemiology	51	56	61	69	71	72	72	71
Biophysics	31	33	33	33	33	33	34	31
Botany	104	104	102	103	104	101	98	95
Cell biology	92	96	104	110	118	121	121	122
Ecology	26	27	28	27	31	31	30	30
Entomology/parasitology	48	49	48	49	49	48	48	48
Genetics	67	72	76	79	82	84	83	82
Microbio., immunology, & virology	237	243	249	260	261	265	264	254
Nutrition	104	109	113	116	121	125	124	122
Pathology	143	147	145	143	143	144	139	138
Pharmacology	162	163	166	167	168	168	163	158
Physiology	145	146	146	146	144	146	144	138
Zoology	49	49	47	50	50	49	45	41
Biosciences, n.e.c.	46	52	63	76	80	85	87	91
Psychology, total	468	490	513	518	534	550	555	558
Psychology, general	171	170	168	165	167	167	163	166
Clinical psychology	101	106	111	114	116	123	127	126
Psychology, n.e.c.	196	214	234	239	251	260	265	266
Social sciences, total	1,230	1,239	1,258	1,265	1,295	1,313	1,316	1,314
Agricultural economics	52	52	53	52	53	54	54	54
Anthropology (cultural & social)	122	126	128	130	132	135	135	137
Economics (except agricultural)	195	197	201	201	204	203	197	196
Geography	96	97	99	99	100	101	99	100
History and philosophy of science	23	21	19	20	21	21	23	23
Linguistics	69	71	70	69	69	70	72	71
Political science	305	307	313	318	324	330	331	332
Sociology	174	175	175	176	177	178	175	172
Sociology/anthropology	30	28	28	25	26	25	25	25
Social sciences, n.e.c.	164	165	172	175	189	196	205	204
Engineering, total	1,238	1,276	1,313	1,335	1,371	1,397	1,411	1,432
Aerospace engineering	42	44	48	50	52	53	52	54
Agricultural engineering	41	41	41	40	38	38	38	38
Biomedical engineering	50	51	56	56	57	59	61	64
Chemical engineering	134	139	140	140	141	141	143	143
Civil engineering	187	194	200	202	212	218	227	231
Electrical engineering	199	207	215	217	224	229	233	237
Engineering science	35	36	37	39	41	39	36	36
Industrial eng./manufacturing eng.	127	134	138	147	156	159	162	163
Mechanical engineering	176	179	184	184	186	188	188	188
Metallurgical/materials eng.	89	96	101	101	104	106	107	112
Mining engineering	27	28	28	30	29	26	24	24
Nuclear engineering	26	26	25	25	26	26	24	23
Petroleum engineering	20	20	20	20	20	21	20	18
Engineering, n.e.c.	85	81	80	84	85	94	96	101

See explanatory information, if any, and SOURCE at end of table.

**Technical Table 2. Number of science, engineering, and health departments
in doctorate-granting institutions, by detailed field: 1990-97**

Page 2 of 2

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, health fields	2,515	2,556	2,639	2,737	2,807	2,863	2,883	2,842
Medical fields, total	1,882	1,915	1,964	2,032	2,084	2,122	2,123	2,066
Anesthesiology	85	87	87	87	89	89	91	90
Cardiology	67	67	68	69	70	71	71	71
Oncology/cancer research	36	38	45	48	50	55	57	60
Endocrinology	74	74	73	72	74	74	74	71
Gastroenterology	65	65	66	68	71	71	71	68
Hematology	67	67	69	71	73	73	72	71
Neurology	130	135	137	145	153	154	151	154
Obstetrics and gynecology	92	92	95	96	96	96	95	90
Ophthalmology	80	80	80	81	81	81	79	78
Otorhinolaryngology	70	70	70	71	72	72	72	68
Pediatrics	107	107	109	111	115	116	118	112
Preventive medicine/community health	165	166	173	178	182	186	187	186
Psychiatry	101	100	101	103	107	107	104	102
Pulmonary disease	63	62	64	67	68	69	68	66
Radiology	128	131	135	137	139	141	138	134
Surgery	221	233	238	246	251	257	259	246
Clinical medicine, n.e.c.	331	341	354	382	393	410	416	399
Other health fields, total	633	641	675	705	723	741	760	776
Dental sciences	78	76	82	87	84	83	82	77
Nursing	123	126	132	136	140	146	144	150
Pharmaceutical sciences	83	84	89	91	92	94	97	95
Speech pathology/audiology	126	127	130	133	135	136	137	139
Veterinary sciences	41	41	42	44	45	46	46	47
Health related, n.e.c.	182	187	200	214	227	236	254	268

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 3. Number of science, engineering, and health departments
in master's-granting institutions, by detailed field: 1990-97**

Page 1 of 2

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	1,328	1,375	1,414	1,458	1,512	1,538	1,538	1,579
Total, science and engineering fields	1,175	1,209	1,237	1,274	1,317	1,329	1,317	1,346
Sciences, total	1,005	1,039	1,068	1,102	1,139	1,148	1,143	1,164
Physical sciences, total	117	120	118	123	124	121	117	121
Astronomy	0	0	0	0	0	0	0	0
Chemistry	79	79	79	79	79	75	73	74
Physics	30	31	30	32	32	32	31	32
Physical sciences, n.e.c.	8	10	9	12	13	14	13	15
Earth, atmos., & ocean sci., total	50	53	56	55	57	63	63	66
Atmospheric sciences	1	1	1	1	1	2	2	2
Geosciences	29	30	29	28	29	30	30	31
Oceanography	5	5	6	6	6	6	5	6
Earth, atmos., & ocean sci., n.e.c.	15	17	20	20	21	25	26	27
Mathematical sciences, total	95	98	101	107	108	108	107	111
Mathematics & applied mathematics	92	94	97	101	102	102	102	106
Statistics	3	4	4	6	6	6	5	5
Computer sciences	75	77	81	86	90	91	92	92
Agricultural sciences	24	25	26	26	32	33	31	30
Biological sciences, total	170	174	175	173	172	176	174	176
Anatomy	0	0	0	0	0	0	0	0
Biochemistry	2	2	2	3	4	4	4	4
Biology	135	137	136	132	130	130	131	131
Biometry/epidemiology	0	1	0	0	0	0	0	0
Biophysics	0	0	0	0	0	0	0	0
Botany	3	3	3	2	2	2	2	2
Cell biology	0	0	0	1	1	2	1	3
Ecology	3	3	3	3	3	3	2	4
Entomology/parasitology	0	0	0	0	0	0	0	0
Genetics	1	1	1	1	1	1	1	1
Microbio., immunology, & virology	2	2	2	2	2	2	2	3
Nutrition	9	9	11	12	13	15	15	13
Pathology	2	2	2	2	2	2	2	1
Pharmacology	1	1	1	1	0	0	0	0
Physiology	0	0	0	0	0	0	0	0
Zoology	2	3	3	2	2	2	2	2
Biosciences, n.e.c.	10	10	11	12	12	13	12	12
Psychology, total	205	211	223	234	242	239	242	250
Psychology, general	91	92	87	90	90	89	91	92
Clinical psychology	24	24	30	31	35	35	35	37
Psychology, n.e.c.	90	95	106	113	117	115	116	121
Social sciences, total	269	281	288	298	314	317	317	318
Agricultural economics	2	2	3	4	4	4	4	4
Anthropology (cultural & social)	11	11	11	11	11	11	11	12
Economics (except agricultural)	32	33	33	34	34	35	36	36
Geography	21	22	23	23	23	23	23	23
History and philosophy of science	0	0	0	0	0	0	0	0
Linguistics	4	6	7	7	7	7	7	7
Political science	99	101	103	104	111	113	113	111
Sociology	41	44	45	45	46	47	45	47
Sociology/anthropology	3	2	2	2	2	2	2	2
Social sciences, n.e.c.	56	60	61	68	76	75	76	76
Engineering, total	170	170	169	172	178	181	174	182
Aerospace engineering	3	2	2	2	4	4	3	3
Agricultural engineering	0	0	0	0	0	0	0	0
Biomedical engineering	3	3	3	4	4	4	3	4
Chemical engineering	6	7	7	7	7	8	8	8
Civil engineering	30	30	29	30	32	35	35	35
Electrical engineering	41	40	41	41	41	43	43	45
Engineering science	2	2	2	2	2	2	2	2
Industrial eng./manufacturing eng.	26	27	28	28	28	30	28	27
Mechanical engineering	24	23	22	23	23	24	22	23
Metallurgical/materials eng.	6	6	6	6	6	5	4	5
Mining engineering	4	4	4	4	4	2	2	2
Nuclear engineering	0	0	0	0	0	0	0	0
Petroleum engineering	1	1	1	1	1	1	1	1
Engineering, n.e.c.	24	25	24	24	26	23	23	27

See explanatory information, if any, and SOURCE at end of table.

**Technical Table 3. Number of science, engineering, and health departments
in master's-granting institutions, by detailed field: 1990-97**

Page 2 of 2

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, health fields	153	166	177	184	195	209	221	233
Medical fields, total	7	9	11	13	16	17	15	16
Anesthesiology	1	1	2	3	3	3	2	3
Cardiology	0	0	0	0	0	0	0	0
Oncology/cancer research	0	0	0	0	0	0	0	0
Endocrinology	0	0	0	0	0	0	0	0
Gastroenterology	0	0	0	0	0	0	0	0
Hematology	0	0	0	0	0	0	0	0
Neurology	0	0	0	0	0	0	0	0
Obstetrics and gynecology	0	0	0	0	0	0	0	0
Ophthalmology	0	0	0	0	0	0	0	0
Otorhinolaryngology	0	0	0	0	0	0	0	0
Pediatrics	0	0	0	0	0	0	0	0
Preventive medicine/community health	4	6	6	7	8	8	8	8
Psychiatry	1	1	1	1	2	2	1	1
Pulmonary disease	0	0	0	0	0	0	0	0
Radiology	0	0	0	0	0	1	1	1
Surgery	0	0	0	0	0	0	0	0
Clinical medicine, n.e.c.	1	1	2	2	3	3	3	3
Other health fields, total	146	157	166	171	179	192	206	217
Dental sciences	0	0	0	0	0	0	0	0
Nursing	45	49	52	55	58	67	70	74
Pharmaceutical sciences	3	2	2	2	1	1	1	1
Speech pathology/audiology	51	56	57	56	57	59	63	65
Veterinary sciences	1	1	1	1	1	1	1	1
Health related, n.e.c.	46	49	54	57	62	64	71	76

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Technical Table 4. Departmental response rates: 1975-97

Page 1 of 1

Year	Total	Complete response	Percent	Partial response	Percent	Non-response	Percent
1975	9,162	8,998	98.2	NA	NA	NA	NA
1976	9,275	9,148	98.6	NA	NA	NA	NA
1977	9,513	9,432	99.1	NA	NA	NA	NA
1978 ¹	8,242	8,077	98.0	NA	NA	NA	NA
1979	9,796	9,446	96.4	NA	NA	NA	NA
1980	9,930	9,593	96.6	NA	NA	NA	NA
1981	9,917	8,594	86.7	613	6.2	710	7.2
1982	9,776	8,104	82.9	744	7.6	928	9.5
1983	9,663	8,070	83.5	816	8.4	777	8.0
1984 ²	8,748	7,490	85.6	643	7.4	615	7.0
1985 ²	9,025	7,818	86.6	672	7.4	535	5.9
1986 ²	9,097	7,817	85.9	779	8.6	501	5.5
1987 ²	9,254	8,030	86.8	715	7.7	509	5.5
1988	10,295	8,812	85.6	970	9.4	513	5.0
1989	10,318	8,908	86.3	891	8.6	519	5.0
1990	10,483	8,884	84.7	1,053	10.0	546	5.2
1991	10,705	9,052	84.6	1,186	11.1	467	4.4
1992	10,936	9,066	82.9	1,538	14.1	332	3.0
1993	11,146	9,156	82.1	1,555	14.0	435	3.9
1994	11,411	8,863	77.7	2,109	18.5	439	3.8
1995	11,598	9,514	82.0	1,730	14.9	354	3.1
1996	11,592	9,851	85.0	1,522	13.1	219	1.9
1997	11,597	9,720	83.8	1,665	14.4	212	1.8

¹ Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

² Master's-granting institutions were surveyed on a sample basis from 1984 through 1987.

NOTE: Departments providing partial responses are included in the complete response column prior to 1981 and reported separately beginning in 1981.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 5. Imputation for nonresponse in doctorate-granting institutions,
by field and enrollment status: 1995-97**

Page 1 of 1

Area of science and engineering	Number of graduate departments		Total in survey			Number imputed			Imputation rate (percent)		
	In universe	Totally imputed	Full-time	Part-time	Postdoctorates	Full-time	Part-time	Postdoctorates	Full-time	Part-time	Postdoctorates
Fall 1997											
Total, all areas	10,018	178	301,573	123,077	37,928	4,539	3,134	757	1.5	2.5	2.0
Engineering	1,432	22	63,834	30,647	2,938	714	909	20	1.1	3.0	.7
Physical sciences	571	7	26,268	3,384	5,836	152	70	8	.6	2.1	.1
Earth, atmospheric, & ocean sciences	349	7	9,934	3,052	934	193	21	30	1.9	.7	3.2
Mathematical sciences	390	7	11,538	3,325	303	144	50	2	1.2	1.5	.7
Computer sciences	283	5	16,488	13,618	315	301	387	0	1.8	2.8	.0
Agricultural sciences	328	1	8,677	2,401	692	30	1	5	.3	.0	.7
Biological sciences	1,951	26	45,064	7,806	14,872	646	108	199	1.4	1.4	1.3
Psychology	558	19	28,764	10,346	560	710	472	1	2.5	4.6	.2
Social sciences	1,314	33	51,594	22,736	356	892	403	3	1.7	1.8	.8
Health fields	2,842	51	39,412	25,762	11,122	757	713	489	1.9	2.8	4.4
Fall 1996											
Total, all areas	10,054	200	304,234	127,460	37,028	6,116	2,294	1,068	2.0	1.8	2.9
Engineering	1,411	14	64,067	32,378	2,662	829	398	13	1.3	1.2	.5
Physical sciences	570	8	27,317	3,515	5,803	400	19	58	1.5	.5	1.0
Earth, atmospheric, & ocean sciences	347	7	10,255	3,427	859	244	98	9	2.4	2.9	1.0
Mathematical sciences	393	9	12,324	3,671	326	279	56	7	2.3	1.5	2.1
Computer sciences	281	4	15,633	13,478	247	545	145	8	3.5	1.1	3.2
Agricultural sciences	318	3	8,882	2,347	665	69	49	5	.8	2.1	.8
Biological sciences	1,980	38	45,837	7,843	14,918	1,011	163	322	2.2	2.1	2.2
Psychology	555	19	28,705	10,016	589	844	252	0	2.9	2.5	.0
Social sciences	1,316	34	53,212	23,898	444	1,219	655	2	2.3	2.7	.5
Health fields	2,883	64	38,002	26,887	10,515	676	459	644	1.8	1.7	6.1
Fall 1995											
Total, all areas	10,040	297	305,659	131,558	35,828	12,636	6,308	827	4.1	4.8	2.3
Engineering	1,397	53	65,828	34,089	2,628	3,652	1,483	65	5.5	4.4	2.5
Physical sciences	576	14	28,233	3,558	5,829	589	98	83	2.1	2.8	1.4
Earth, atmospheric, & ocean sciences	350	10	10,728	3,416	845	332	88	45	3.1	2.6	5.3
Mathematical sciences	393	15	12,743	3,665	259	336	90	6	2.6	2.5	2.3
Computer sciences	274	7	15,216	13,054	213	460	386	5	3.0	3.0	2.3
Agricultural sciences	324	6	9,156	2,437	688	110	29	5	1.2	1.2	.7
Biological sciences	2,000	54	46,435	7,674	14,672	1,801	317	434	3.9	4.1	3.0
Psychology	550	26	28,478	10,593	577	1,752	664	12	6.2	6.3	2.1
Social sciences	1,313	56	52,596	25,095	376	1,953	1,329	5	3.7	5.3	1.3
Health fields	2,863	56	36,246	27,977	9,741	1,651	1,824	167	4.6	6.5	1.7

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 6. Imputation for nonresponse in master's-granting institutions,
by field and enrollment status: 1995-97**

Page 1 of 1

Area of science and engineering	Number of graduate departments		Total in survey			Number imputed			Imputation rate (percent)		
	In universe	Totally imputed	Full-time	Part-time	Postdoctorates	Full-time	Part-time	Postdoctorates	Full-time	Part-time	Postdoctorates
Fall 1997											
Total, all areas	1,579	34	25,269	37,185	115	1,286	751	0	5.1	2.0	0.0
Engineering	182	5	1,760	4,767	7	81	95	0	4.6	2.0	.0
Physical sciences	121	0	624	832	71	0	0	0	.0	.0	.0
Earth, atmospheric, & ocean sciences	66	2	616	1,042	4	18	6	0	2.9	.6	.0
Mathematical sciences	111	0	615	1,281	2	0	0	0	.0	.0	.0
Computer sciences	92	4	1,832	4,072	3	159	128	0	8.7	3.1	.0
Agricultural sciences	30	0	433	299	9	0	0	0	.0	.0	.0
Biological sciences	176	0	1,934	2,331	8	0	0	0	.0	.0	.0
Psychology	250	8	6,758	7,274	7	643	333	0	9.5	4.6	.0
Social sciences	318	12	3,879	7,819	0	218	174	0	5.6	2.2	.0
Health fields	233	3	6,818	7,468	4	167	15	0	2.4	.2	.0
Fall 1996											
Total, all areas	1,538	18	24,219	38,306	79	236	871	0	1.0	2.3	0.0
Engineering	174	3	1,784	4,994	12	5	73	0	.3	1.5	.0
Physical sciences	117	1	639	884	36	0	18	0	.0	2.0	.0
Earth, atmospheric, & ocean sciences	63	0	571	1,027	2	0	0	0	.0	.0	.0
Mathematical sciences	107	0	642	1,378	0	0	0	0	.0	.0	.0
Computer sciences	92	2	1,540	3,941	3	63	99	0	4.1	2.5	.0
Agricultural sciences	31	0	416	269	12	0	0	0	.0	.0	.0
Biological sciences	174	1	1,907	2,541	8	1	32	0	.1	1.3	.0
Psychology	242	2	6,763	7,725	5	56	148	0	.8	1.9	.0
Social sciences	317	8	3,700	7,837	0	87	432	0	2.4	5.5	.0
Health fields	221	1	6,257	7,710	1	24	69	0	.4	.9	.0
Fall 1995											
Total, all areas	1,538	33	23,489	39,026	98	678	993	10	2.9	2.5	10.2
Engineering	181	5	1,946	5,336	13	24	50	0	1.2	.9	.0
Physical sciences	121	2	669	957	34	2	45	6	.3	4.7	17.6
Earth, atmospheric, & ocean sciences	63	1	547	1,114	0	2	8	0	.4	.7	.0
Mathematical sciences	108	0	667	1,434	3	0	0	0	.0	.0	.0
Computer sciences	91	1	1,274	3,888	0	0	4	0	.0	.1	.0
Agricultural sciences	33	0	464	310	13	0	0	0	.0	.0	.0
Biological sciences	176	2	1,895	2,732	28	8	57	4	.4	2.1	14.3
Psychology	239	9	6,744	7,826	5	522	318	0	7.7	4.1	.0
Social sciences	317	10	3,634	8,124	0	97	448	0	2.7	5.5	.0
Health fields	209	3	5,649	7,305	2	23	63	0	.4	.9	.0

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Technical Table 7. Imputation rates for all departments
at all graduate institutions: fall 1997**

[Number of departments having imputed data = 1,877]

Page 1 of 1

Items 5 and 6 Enrollment status, mechanism of support, and gender of S&E graduate students	Students receiving financial assistance											Self support (includ. loans & family sources)	Total for all sources (sum of columns A - K)		
	Federal sources (excluding loans)							Non-Federal sources							
	DoD (A)	HHS		NSF (D)	Dept. of Agr. (E)	NASA (F)	Other Federal sources (G)	Inst. support (H)	Foreign sources (I)	Other U.S. sources (J)					
		(B)	(C)												
Item 5 Full-time graduate S&E students:															
Graduate fellowships	5.0	4.7	6.0	9.7	9.9	3.4	8.6	7.4	7.9	9.8	NA	7.8			
Graduate traineeships	8.5	6.2	11.2	7.8	28.0	1.2	11.8	10.0	6.7	15.0	NA	9.1			
Graduate research assistants	10.7	9.9	5.0	10.2	13.5	5.4	10.7	9.8	6.5	10.2	NA	9.9			
Graduate teaching assistants	NA	0.7	7.6	6.0	26.7	0.0	11.8	10.8	NA	14.4	NA	10.8			
Other types of support	69.3	17.4	22.4	7.0	0.0	0.0	4.2	15.0	11.4	7.9	17.3	17.2			
Full-time total	23.2	8.6	9.5	10.0	13.4	4.8	10.0	10.5	9.0	10.0	17.3	1.8			
Full-time women	15.9	9.3	10.0	8.8	14.5	3.7	10.1	12.4	7.2	11.5	20.1	3.9			
Full-time first-time total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.5			
Full-time first-time women	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.4			
Item 6 Part-time graduate S&E students:															
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5			
Women	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.7			

Item 7 Race/ethnicity of full-time and part-time graduate S&E students, by sex	U.S. citizens and permanent residents							Foreign (H)	Total (sum of columns A - H)
	Black non- Hispanic (A)	American Indian/ Alaskan (B)	Asian/ Pacific Islander (C)	Hispanic (D)	White non- Hispanic (E)	Other (F)	Unknown (G)		
	(A)	(B)	(C)	(D)	(E)	(F)	(G)		
Men enrolled full-time	6.9	3.0	6.2	7.3	7.8	3.9	5.3	8.7	3.9
Women enrolled full-time	9.6	5.2	5.6	8.3	7.3	7.6	7.4	7.4	3.9
Full-time, total	7.5	3.6	4.4	6.6	6.2	4.2	4.8	6.3	1.8
Men enrolled part-time	10.2	3.7	6.2	6.6	9.5	10.8	7.6	9.8	5.0
Women enrolled part-time	10.3	2.3	5.1	7.7	8.7	4.6	8.4	9.7	4.7
Part-time, total	10.1	3.0	5.5	7.1	8.6	6.5	8.0	9.3	2.5

Item 8 S&E postdoctorates and nonfaculty research staff with doctorates	Postdoctorates						Other non- faculty research staff with doctor- ates (G)				
	Source of support				Total for all sources (A - D)	Foreign postdoc- torates (F)					
	Federal										
	Fellow- ships (A)	Trainee- ships (B)	Research grants (C)	Non- Federal (D)							
Total	8.7	14.1	9.7	10.6	6.3	5.7	6.4				
Women	6.9	11.6	9.8	10.3	6.3	6.0	6.9				
With MD, DDS or DVM degrees	11.9	16.3	10.6	11.2	9.2	7.6	6.1				

KEY: NA = not applicable

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Technical Table 8. Comparison of graduate enrollment data as originally published and as modified through the fall 1997 graduate student survey cycle: 1975-97

Page 1 of 2

Year	Total, all institutions			Doctorate-granting institutions			Master's-granting institutions		
	Original total	Revised total	Percent change	Original total	Revised total	Percent change	Original total	Revised total	Percent change
Total graduate enrollment in surveyed fields									
1975 ¹	336,843	328,550	-2.5	290,662	295,550	1.7	46,181	33,000	-28.5
1976	345,979	333,755	-3.5	297,280	299,724	.8	48,699	34,031	-30.1
1977	362,978	345,416	-4.8	306,710	307,473	.2	56,268	37,943	-32.6
1978 ²	N/A	339,912	N/A	311,982	300,482	-3.7	N/A	39,430	N/A
1979	375,267	357,609	-4.7	321,770	316,633	-1.6	53,497	40,976	-23.4
1980	383,210	367,111	-4.2	333,658	326,147	-2.3	49,552	40,964	-17.3
1981	392,034	375,158	-4.3	340,203	332,698	-2.2	51,831	42,460	-18.1
1982	399,682	382,334	-4.3	347,414	339,123	-2.4	52,268	43,211	-17.3
1983	413,564	390,474	-5.6	358,276	345,909	-3.5	55,288	44,565	-19.4
1984 ³	415,064	394,670	-4.9	363,470	348,277	-4.2	51,594	46,393	-10.1
1985 ³	434,836	404,021	-7.1	371,052	357,748	-3.6	63,784	46,273	-27.5
1986 ³	446,102	415,542	-6.9	384,203	368,366	-4.1	61,899	47,176	-23.8
1987 ³	449,585	421,512	-6.2	388,681	373,873	-3.8	60,904	47,639	-21.8
1988	445,595	424,613	-4.7	391,683	379,454	-3.1	53,912	45,159	-16.2
1989	440,983	434,567	-1.5	385,025	386,779	.5	55,958	47,788	-14.6
1990	458,943	452,178	-1.5	398,405	400,371	.5	60,538	51,807	-14.4
1991	475,691	471,262	-.9	411,296	415,509	1.0	64,395	55,753	-13.4
1992	495,397	493,632	-.4	427,792	434,505	1.6	67,605	59,127	-12.5
1993	506,678	504,449	-.4	440,875	442,512	.4	65,803	61,937	-5.9
1994	506,626	504,542	-.4	441,480	442,915	.3	65,146	61,627	-5.4
1995	501,510	499,732	-.4	436,328	437,217	.2	65,182	62,515	-4.1
1996	494,526	494,219	-.1	430,631	431,694	.2	63,895	62,525	-2.1
1997	487,104	N/A	N/A	424,650	N/A	N/A	62,454	N/A	N/A
Full-time									
1975 ¹	228,316	219,687	-3.8	210,641	207,450	-1.5	17,675	12,237	-30.8
1976	233,748	223,446	-4.4	215,355	211,227	-1.9	18,393	12,219	-33.6
1977	238,202	226,776	-4.8	218,226	213,269	-2.3	19,976	13,507	-32.4
1978 ²	N/A	223,030	N/A	217,588	209,107	-3.9	N/A	13,923	N/A
1979	243,331	231,790	-4.7	224,057	217,437	-3.0	19,274	14,353	-25.5
1980	249,111	238,448	-4.3	230,601	223,620	-3.0	18,510	14,828	-19.9
1981	253,428	242,076	-4.5	234,529	227,418	-3.0	18,899	14,658	-22.4
1982	255,959	244,796	-4.4	237,676	230,458	-3.0	18,283	14,338	-21.6
1983	263,800	252,055	-4.5	243,646	236,389	-3.0	20,154	15,666	-22.3
1984 ³	264,146	253,922	-3.9	246,848	237,444	-3.8	17,298	16,478	-4.7
1985 ³	269,319	257,287	-4.5	249,666	241,059	-3.4	19,653	16,228	-17.4
1986 ³	279,235	266,182	-4.7	259,980	249,763	-3.9	19,255	16,419	-14.7
1987 ³	285,200	271,066	-5.0	264,862	254,307	-4.0	20,338	16,759	-17.6
1988	288,619	275,194	-4.7	268,385	259,698	-3.2	20,234	15,496	-23.4
1989	286,619	282,719	-1.4	267,554	266,818	-.3	19,065	15,901	-16.6
1990	295,836	292,830	-1.0	275,262	275,433	.1	20,574	17,397	-15.4
1991	308,669	307,040	-.5	286,756	287,809	.4	21,913	19,231	-12.2
1992	323,399	322,609	-.2	299,753	301,772	.7	23,646	20,837	-11.9
1993	330,249	329,679	-.2	307,181	307,693	.2	23,068	21,986	-4.7
1994	331,969	332,129	.0	307,964	309,329	.4	24,005	22,800	-5.0
1995	330,235	329,148	-.3	305,652	305,659	.0	24,583	23,489	-4.5
1996	328,368	328,453	.0	303,586	304,234	.2	24,782	24,219	-2.3
1997	326,842	N/A	N/A	301,573	N/A	N/A	25,269	N/A	N/A

See explanatory information, if any, and SOURCE at end of table.

Technical Table 8. Comparison of graduate enrollment data as originally published and as modified through the fall 1997 graduate student survey cycle: 1975-97

Page 2 of 2

Year	Total, all institutions			Doctorate-granting institutions			Master's-granting institutions		
	Original total	Revised total	Percent change	Original total	Revised total	Percent change	Original total	Revised total	Percent change
Part-time									
1975 ¹	108,527	108,863	0.3	80,021	88,100	10.1	28,506	20,763	-27.2
1976	112,231	110,309	-1.7	81,925	88,497	8.0	30,306	21,812	-28.0
1977	124,776	118,640	-4.9	88,484	94,204	6.5	36,292	24,436	-32.7
1978 ²	N/A	116,882	N/A	94,394	91,375	-3.2	N/A	25,507	N/A
1979	131,936	125,819	-4.6	97,713	99,196	1.5	34,223	26,623	-22.2
1980	134,099	128,663	-4.1	103,057	102,527	-.5	31,042	26,136	-15.8
1981	138,606	133,082	-4.0	105,674	105,280	-.4	32,932	27,802	-15.6
1982	143,723	137,538	-4.3	109,738	108,665	-1.0	33,985	28,873	-15.0
1983	149,764	138,419	-7.6	114,630	109,520	-4.5	35,134	28,899	-17.7
1984 ³	150,918	140,748	-6.7	116,622	110,833	-5.0	34,296	29,915	-12.8
1985 ³	165,517	146,734	-11.3	121,386	116,689	-3.9	44,131	30,045	-31.9
1986 ³	166,867	149,360	-10.5	124,223	118,603	-4.5	42,644	30,757	-27.9
1987 ³	164,385	150,446	-8.5	123,819	119,566	-3.4	40,566	30,880	-23.9
1988	156,976	149,419	-4.8	123,298	119,756	-2.9	33,678	29,663	-11.9
1989	154,364	151,848	-1.6	117,471	119,961	2.1	36,893	31,887	-13.6
1990	163,107	159,348	-2.3	123,143	124,938	1.5	39,964	34,410	-13.9
1991	167,022	164,222	-1.7	124,540	127,700	2.5	42,482	36,522	-14.0
1992	171,998	171,023	-.6	128,039	132,733	3.7	43,959	38,290	-12.9
1993	176,429	174,770	-.9	133,694	134,819	.8	42,735	39,951	-6.5
1994	174,657	172,413	-1.3	133,516	133,586	.1	41,141	38,827	-5.6
1995	171,275	170,584	-.4	130,676	131,558	.7	40,599	39,026	-3.9
1996	166,158	165,766	-.2	127,045	127,460	.3	39,113	38,306	-2.1
1997	160,262	N/A	N/A	123,077	N/A	N/A	37,185	N/A	N/A

¹ The 1976 survey also collected 1975 data from master's-granting institutions.

² Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

³ These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984 through 1987. See "Technical Notes" for further information.

NOTE: The percent change column is presented as a measure of retroactive changes in survey definitions. Three survey changes in the late 1980s and early 1990s had a retroactive effect on figures reported for earlier years. First, degree-granting status (doctorate or master's) used to be determined by an institution's status each year. Beginning in 1992, degree-granting status was determined by the status reported in the latest survey year. This change shifted numerous institutions (and students) from master's-granting to doctorate-granting categories for years before 1992. Second, in 1988 guidelines to determine S&E departments were tightened. This change meant retroactively dropping departments in fields like educational psychology, social work, and cultural studies from the survey population. Third, improved estimates were generated for years in which enrollments at master's-granting institutions were sampled (1984-87).

KEY: N/A = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

LIST OF TABLES

<i>Table</i>		<i>Page</i>
ALL INSTITUTIONS		
LONG-TERM TRENDS (1975–97)		
1.	Graduate students in science, engineering, and health fields in all institutions, by field: 1975–97	27
2.	Male graduate students in science, engineering, and health fields in all institutions, by field: 1975–97	28
3.	Female graduate students in science, engineering, and health fields in all institutions, by field: 1975–97	29
4.	Full-time graduate students in science, engineering, and health fields in all institutions, by field: 1975–97	30
5.	Male full-time graduate students in science, engineering, and health fields in all institutions, by field: 1975–97	31
6.	Female full-time graduate students in science, engineering, and health fields in all institutions, by field: 1975–97	32
7.	Full-time graduate students with U.S. citizenship in science, engineering, and health fields in all institutions, by field: 1975–97	33
8.	Full-time graduate students without U.S. citizenship in science, engineering, and health fields in all institutions, by field: 1975–97	34
TRENDS BY DETAILED FIELD (1990–97)		
9.	Graduate students in science, engineering, and health fields in all institutions, by detailed field: 1990–97	35
10.	Male graduate students in science, engineering, and health fields in all institutions, by detailed field: 1990–97	37
11.	Female graduate students in science, engineering, and health fields in all institutions, by detailed field: 1990–97	38
12.	Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and racial/ethnic background of U.S. citizens: 1990–97	39

<i>Table</i>	<i>Page</i>
--------------	-------------

13. Graduate students in science, engineering, and health fields in all institutions, by sex, field, and citizenship, and by racial/ethnic background of U.S. citizens: 1994–97	42
14. Graduate students in science, engineering, and health fields in public institutions, by detailed field: 1990–97	46
15. Graduate students in science, engineering, and health fields in private institutions, by detailed field: 1990–97	47
16. Graduate students in science and engineering fields in all institutions, by field and Carnegie classification: 1990–97	48
17. Full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1990–97	50
18. Male full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1990–97	51
19. Female full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1990–97	52
20. Full-time graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and racial/ethnic background of U.S. citizens: 1990–97	53
21. Full-time graduate science, engineering, and health students without U.S. citizenship in all institutions, by detailed field: 1990–97	56
22. Full-time graduate students in science and engineering fields in all institutions, by field and Carnegie classification: 1990–97	57
23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and source of support: 1990–97	59
24. Full-time graduate students in science, engineering, and health fields in all institutions, by field and mechanism of support: 1990–97	64
25. Full-time graduate students in science and engineering fields in all institutions, by mechanism and source of support: 1990–97	66
26. Full-time students in graduate school for the first time in science, engineering, and health fields in all institutions, by detailed field: 1990–97	68

<i>Table</i>	<i>Page</i>
--------------	-------------

CURRENT YEAR TABLES BY SEX, DETAILED FIELD, CITIZENSHIP, AND RACE/ETHNICITY

27. Graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997	69
28. Male graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997	71
29. Female graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997	73

CURRENT YEAR TABLES BY INSTITUTION AND GEOGRAPHIC AREA

30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997	75
31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997	87

DOCTORATE-GRANTING INSTITUTIONS

32. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1990–97	99
33. Graduate students in science, engineering, and health fields in public doctorate-granting institutions, by detailed field: 1990–97	101
34. Graduate students in science, engineering, and health fields in private doctorate-granting institutions, by detailed field: 1990–97	102
35. Graduate students in science and engineering fields in doctorate-granting institutions, by enrollment status, citizenship, and racial/ethnic background of U.S. citizens: 1990–97	103
36. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997	104
37. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1990–97	106

<i>Table</i>	<i>Page</i>
--------------	-------------

38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990–97	107
39. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and mechanism of support: 1990–97	112
40. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field and mechanism of support: 1997	114
41. Full-time graduate students in science and engineering fields in doctorate-granting institutions, by mechanism and source of support: 1990–97	115
42. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by sex, source of support, and field: 1997	117
43. Full-time graduate science, engineering, and health students with U.S. citizenship in doctorate-granting institutions, by detailed field: 1990–97	119
44. Full-time graduate science, engineering, and health students without U.S. citizenship in doctorate-granting institutions, by detailed field: 1990–97	120
45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990–97	121
46. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions, by detailed field: 1990–97	127
47. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions, by detailed field and source of support, and number of postdoctoral appointees without U.S. citizenship: 1997	128
48. Nonfaculty research scientists, engineers, and health professionals with doctorates in doctorate-granting institutions, by detailed field: 1990–97	130

HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

49. Graduate students in science, engineering, and health fields in historically black colleges and universities, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997	131
50. Graduate students in science and engineering fields in historically black colleges and universities, by geographic distribution, citizenship, and racial/ethnic background of U.S. citizens: 1997	133
51. Black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field: 1990–97	135

<i>Table</i>	<i>Page</i>
52. Black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field and sex: 1994–97	136
53. Full-time black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field: 1990–97	137
54. Full-time black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field and sex: 1994–97	138

**Table 1. Graduate students in science, engineering, and health fields in all institutions,
by field: 1975-97**

Page 1 of 1

Year	Total, science and engi- neering	Sciences									Health fields
		Sciences, total	Physical sciences	Earth, atmos- pheric, & ocean sciences	Math- ematical sciences	Computer sciences	Agricul- tural sciences	Biological sciences	Psychology	Social sciences	
1975	303,031	234,760	26,310	12,079	16,892	8,415	10,702	46,398	36,191	77,773	
1976	305,465	238,808	26,631	12,819	17,071	8,627	11,285	47,728	37,458	77,189	
1977	311,741	243,056	26,855	13,455	16,052	9,108	11,677	49,234	38,617	78,058	
1978 ¹	304,301	236,604	26,274	13,276	14,812	9,847	11,869	47,923	37,522	75,081	
1979	319,092	247,364	26,695	13,737	15,031	11,690	12,240	48,199	39,766	80,006	
1980	325,649	251,337	26,934	14,051	15,311	13,578	12,452	47,596	40,610	80,805	
1981	332,041	252,486	27,357	14,266	15,881	16,437	12,355	46,639	40,666	78,885	
1982	338,916	255,229	28,186	15,020	17,157	19,812	12,583	45,970	40,073	76,428	
1983	347,017	255,898	29,453	15,453	17,358	23,333	12,429	45,644	40,905	71,323	
1984 ²	349,698	256,986	30,056	15,505	17,443	25,526	12,226	45,763	40,931	69,536	
1985 ²	358,059	262,068	30,981	15,420	17,563	29,769	11,561	46,112	40,721	69,941	
1986 ²	368,104	266,230	32,246	15,066	17,949	31,349	11,458	46,764	41,241	70,157	
1987 ²	373,341	269,388	32,727	14,371	18,508	32,051	11,118	46,747	42,612	71,254	
1988	375,277	272,448	32,962	13,867	19,077	32,227	11,135	47,565	43,963	71,652	
1989	382,747	278,704	33,616	13,643	19,247	32,482	11,190	48,852	45,528	74,146	
1990	397,135	289,510	34,075	13,984	19,774	34,257	11,316	49,989	48,167	77,948	
1991	412,697	299,121	34,710	14,480	19,952	34,610	11,506	51,778	51,343	80,742	
1992	430,644	312,609	35,348	15,347	20,355	36,293	11,827	54,177	53,484	85,778	
1993	435,886	319,028	35,318	15,805	20,000	36,189	11,914	56,452	54,557	88,793	
1994	431,251	318,228	34,449	16,042	19,579	34,128	12,199	58,143	54,554	89,134	
1995	422,555	315,356	33,417	15,805	18,509	33,432	12,367	58,736	53,641	89,449	
1996	415,363	312,140	32,355	15,280	18,015	34,592	11,914	58,128	53,209	88,647	
1997	407,644	306,636	31,108	14,644	16,759	36,010	11,810	57,135	53,142	86,028	
Engineering											
Engi- neering, total	Aerospace engineering	Chemical engineering	Civil engi- neering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallur- gical & materials engineering	Other engi- neering			
1975	68,271	1,670	5,034	12,560	16,320	11,663	8,601	2,352	10,071	25,519	
1976	66,657	1,477	5,205	11,995	15,926	10,687	8,313	2,375	10,679	28,290	
1977	68,685	1,518	5,201	12,335	17,406	10,438	8,722	2,559	10,506	33,675	
1978 ¹	67,697	1,463	5,341	12,358	17,127	9,494	8,638	2,570	10,706	35,611	
1979	71,728	1,481	5,605	12,822	17,715	10,729	9,251	2,756	11,369	38,517	
1980	74,312	1,737	6,015	13,097	19,132	9,698	9,888	2,910	11,835	41,462	
1981	79,555	1,883	6,496	14,089	20,113	9,737	10,618	3,125	13,494	43,117	
1982	83,687	1,941	7,189	14,122	21,927	9,577	11,467	3,124	14,340	43,418	
1983	91,119	2,305	7,563	14,910	25,295	9,247	12,911	3,447	15,441	43,457	
1984 ²	92,712	2,340	7,373	15,192	26,388	9,282	13,855	3,657	14,625	44,972	
1985 ²	95,991	2,538	7,150	14,902	28,203	10,499	14,157	3,943	14,599	45,962	
1986 ²	101,874	2,804	7,012	14,976	29,969	11,529	15,713	4,208	15,663	47,438	
1987 ²	103,953	3,015	7,111	14,682	31,399	12,220	16,366	4,366	14,794	48,171	
1988	102,829	3,223	6,618	14,811	32,035	11,393	16,151	4,337	14,261	49,336	
1989	104,043	3,524	6,460	14,909	33,257	11,094	16,265	4,594	13,940	51,820	
1990	107,625	3,934	6,735	15,542	33,722	11,248	16,879	4,941	14,624	55,043	
1991	113,576	4,120	7,127	17,398	35,182	12,676	17,730	5,160	14,183	58,565	
1992	118,035	4,036	7,397	19,572	36,460	13,525	18,637	5,512	12,896	62,988	
1993	116,858	3,940	7,516	19,583	35,314	13,596	18,477	5,363	13,069	68,563	
1994	113,023	3,715	7,608	19,925	33,050	13,661	17,761	5,191	12,112	73,291	
1995	107,199	3,343	7,424	19,218	30,747	13,143	16,363	4,920	12,041	77,177	
1996	103,223	3,208	7,373	18,528	29,736	12,399	15,509	4,713	11,757	78,856	
1997	101,008	3,083	7,247	17,033	30,617	11,725	15,044	4,649	11,610	79,460	

¹ Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 2. Male graduate students in science, engineering, and health fields in all institutions,
by field: 1975-97**

Page 1 of 1

Year	Total, science and engi- neering	Sciences									Health fields
		Sciences, total	Physical sciences	Earth, atmos- pheric, & ocean sciences	Math- ematical sciences	Computer sciences	Agricul- tural sciences	Biological sciences	Psychology	Social sciences	
1975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1977	233,818	168,833	22,816	11,176	11,933	7,549	9,570	32,511	20,518	52,760	
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979	229,812	163,960	22,202	10,850	11,009	9,367	9,575	30,318	19,424	51,215	
1980	231,253	163,280	22,338	10,844	11,247	10,491	9,594	29,295	19,027	50,444	
1981	232,193	160,384	22,348	10,848	11,400	12,228	9,533	27,992	17,900	48,135	
1982	235,340	160,428	22,767	11,297	12,079	14,366	9,498	26,797	16,976	46,648	
1983	240,498	159,186	23,576	11,552	12,158	16,719	9,290	26,293	16,648	42,950	
1984 ²	242,152	159,737	23,898	11,632	12,275	18,653	9,088	26,246	16,180	41,765	
1985 ²	247,421	162,510	24,474	11,493	12,209	22,208	8,570	26,208	15,597	41,751	
1986 ²	253,686	164,177	25,384	11,119	12,470	23,497	8,505	26,293	15,377	41,532	
1987 ²	256,149	165,159	25,613	10,592	12,912	24,036	8,166	26,314	15,683	41,843	
1988	254,005	164,300	25,465	10,062	13,301	24,033	8,038	26,304	15,502	41,595	
1989	256,849	166,406	25,815	9,785	13,262	24,494	8,045	26,618	15,673	42,714	
1990	263,394	170,441	26,007	9,865	13,575	26,058	7,981	26,947	15,822	44,186	
1991	271,845	173,984	26,146	10,025	13,654	26,340	7,939	27,643	16,556	45,681	
1992	280,397	179,595	26,504	10,489	13,806	27,838	8,059	28,702	16,650	47,547	
1993	279,289	180,123	26,116	10,745	13,362	27,767	7,826	29,399	16,567	48,341	
1994	272,120	177,146	25,290	10,689	13,044	26,043	7,911	29,988	16,416	47,765	
1995	262,341	173,156	24,327	10,336	12,248	25,306	7,935	29,890	15,877	47,237	
1996	253,629	168,658	23,303	9,786	11,794	25,802	7,502	29,360	15,403	45,708	
1997	245,615	163,322	22,257	9,187	10,875	26,133	7,277	28,513	15,499	43,581	
Engineering											
Engi- neering, total	Aerospace engineering	Chemical engineering	Civil engi- neering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallur- gical & materials engineering	Other engi- neering			
1975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1977	64,985	1,485	4,827	11,507	16,696	9,683	8,449	2,376	9,962	11,109	
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1979	65,852	1,432	4,991	11,503	16,782	9,473	8,782	2,468	10,421	11,028	
1980	67,973	1,663	5,336	11,732	18,149	8,343	9,354	2,607	10,789	11,707	
1981	71,809	1,816	5,718	12,515	18,837	8,194	9,987	2,735	12,007	11,367	
1982	74,912	1,831	6,288	12,373	20,376	7,958	10,748	2,704	12,634	10,958	
1983	81,312	2,182	6,547	13,051	23,227	7,729	12,106	2,999	13,471	10,430	
1984 ²	82,415	2,208	6,401	13,165	24,175	7,674	12,899	3,189	12,704	10,501	
1985 ²	84,911	2,375	6,146	12,755	25,768	8,719	13,146	3,340	12,662	10,795	
1986 ²	89,509	2,604	5,973	12,829	27,061	9,434	14,554	3,533	13,521	11,049	
1987 ²	90,990	2,791	5,957	12,579	28,301	9,976	15,070	3,637	12,679	11,795	
1988	89,705	2,996	5,543	12,517	28,757	9,300	14,749	3,581	12,262	11,407	
1989	90,443	3,281	5,431	12,474	29,742	8,984	14,867	3,784	11,880	11,884	
1990	92,953	3,645	5,589	12,853	30,007	9,111	15,437	4,048	12,263	12,284	
1991	97,861	3,793	5,870	14,296	31,311	10,321	16,219	4,173	11,878	13,053	
1992	100,802	3,688	6,003	15,918	32,167	10,870	16,939	4,443	10,774	13,837	
1993	99,166	3,583	6,017	15,725	30,992	11,003	16,703	4,336	10,807	15,213	
1994	94,974	3,357	6,082	15,714	28,946	10,866	15,938	4,122	9,949	16,253	
1995	89,185	2,992	5,863	14,986	26,652	10,388	14,686	3,861	9,757	17,065	
1996	84,971	2,856	5,731	14,228	25,607	9,685	13,873	3,653	9,338	18,109	
1997	82,293	2,712	5,538	12,874	26,158	9,115	13,265	3,555	9,076	18,806	

¹ Master's-granting institutions were not surveyed in 1978.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 3. Female graduate students in science, engineering, and health fields in all institutions,
by field: 1975-97**

Page 1 of 1

Year	Total, science and engi- neering	Sciences									Health fields
		Sciences, total	Physical sciences	Earth, atmos- pheric, & ocean sciences	Math- ematical sciences	Computer sciences	Agricul- tural sciences	Biological sciences	Psychology	Social sciences	
1975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1977	77,923	74,223	4,039	2,279	4,119	1,559	2,107	16,723	18,099	25,298	
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979	89,280	83,404	4,493	2,887	4,022	2,323	2,665	17,881	20,342	28,791	
1980	94,396	88,057	4,596	3,207	4,064	3,087	2,858	18,301	21,583	30,361	
1981	99,848	92,102	5,009	3,418	4,481	4,209	2,822	18,647	22,766	30,750	
1982	103,576	94,801	5,419	3,723	5,078	5,446	3,085	19,173	23,097	29,780	
1983	106,519	96,712	5,877	3,901	5,200	6,614	3,139	19,351	24,257	28,373	
1984 ²	107,546	97,249	6,158	3,873	5,168	6,873	3,138	19,517	24,751	27,771	
1985 ²	110,638	99,558	6,507	3,927	5,354	7,561	2,991	19,904	25,124	28,190	
1986 ²	114,418	102,053	6,862	3,947	5,479	7,852	2,953	20,471	25,864	28,625	
1987 ²	117,192	104,229	7,114	3,779	5,596	8,015	2,952	20,433	26,929	29,411	
1988	121,272	108,148	7,497	3,805	5,776	8,194	3,097	21,261	28,461	30,057	
1989	125,898	112,298	7,801	3,858	5,985	7,988	3,145	22,234	29,855	31,432	
1990	133,741	119,069	8,068	4,119	6,199	8,199	3,335	23,042	32,345	33,762	
1991	140,852	125,137	8,564	4,455	6,298	8,270	3,567	24,135	34,787	35,061	
1992	150,247	133,014	8,844	4,858	6,549	8,455	3,768	25,475	36,834	38,231	
1993	156,597	138,905	9,202	5,060	6,638	8,422	4,088	27,053	37,990	40,452	
1994	159,131	141,082	9,159	5,353	6,535	8,085	4,288	28,155	38,138	41,369	
1995	160,214	142,200	9,090	5,469	6,261	8,126	4,432	28,846	37,764	42,212	
1996	161,734	143,482	9,052	5,494	6,221	8,790	4,412	28,768	37,806	42,939	
1997	162,029	143,314	8,851	5,457	5,884	9,877	4,533	28,622	37,643	42,447	
Engineering											
Engi- neering, total	Aerospace engineering	Chemical engineering	Civil engi- neering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallur- gical & materials engineering	Other engi- neering			
1975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1977	3,700	33	374	828	710	755	273	183	544	22,566	
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1979	5,876	49	614	1,319	933	1,256	469	288	948	27,489	
1980	6,339	74	679	1,365	983	1,355	534	303	1,046	29,755	
1981	7,746	67	778	1,574	1,276	1,543	631	390	1,487	31,750	
1982	8,775	110	901	1,749	1,551	1,619	719	420	1,706	32,460	
1983	9,807	123	1,016	1,859	2,068	1,518	805	448	1,970	33,027	
1984 ²	10,297	132	972	2,027	2,213	1,608	956	468	1,921	34,471	
1985 ²	11,080	163	1,004	2,147	2,435	1,780	1,011	603	1,937	35,167	
1986 ²	12,365	200	1,039	2,147	2,908	2,095	1,159	675	2,142	36,389	
1987 ²	12,963	224	1,154	2,103	3,098	2,244	1,296	729	2,115	36,376	
1988	13,124	227	1,075	2,294	3,278	2,093	1,402	756	1,999	37,929	
1989	13,600	243	1,029	2,435	3,515	2,110	1,398	810	2,060	39,936	
1990	14,672	289	1,146	2,689	3,715	2,137	1,442	893	2,361	42,759	
1991	15,715	327	1,257	3,102	3,871	2,355	1,511	987	2,305	45,512	
1992	17,233	348	1,394	3,654	4,293	2,655	1,698	1,069	2,122	49,151	
1993	17,692	357	1,499	3,858	4,322	2,593	1,774	1,027	2,262	53,350	
1994	18,049	358	1,526	4,211	4,104	2,795	1,823	1,069	2,163	57,038	
1995	18,014	351	1,561	4,232	4,095	2,755	1,677	1,059	2,284	60,112	
1996	18,252	352	1,642	4,300	4,129	2,714	1,636	1,060	2,419	60,747	
1997	18,715	371	1,709	4,159	4,459	2,610	1,779	1,094	2,534	60,654	

¹ Master's-granting institutions were not surveyed in 1978.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 4. Full-time graduate students in science, engineering, and health fields
in all institutions, by field: 1975-97**

Page 1 of 1

Year	Total, science and engi- neering	Sciences									Health fields
		Sciences, total	Physical sciences	Earth, atmos- pheric, & ocean sciences	Math- ematical sciences	Computer sciences	Agricul- tural sciences	Biological sciences	Psychology	Social sciences	
1975	202,300	164,538	21,916	9,557	10,694	4,473	8,889	36,874	24,105	48,030	
1976	204,861	167,979	22,252	10,091	10,952	4,748	9,436	37,905	25,643	46,952	
1977	206,452	169,296	22,505	10,424	10,365	4,604	9,711	38,415	25,703	47,569	
1978 ¹	201,782	164,277	22,135	10,369	9,769	4,930	9,727	37,788	24,754	44,805	
1979	209,044	169,077	22,535	10,625	9,667	5,853	9,952	37,996	25,848	46,601	
1980	214,465	171,838	22,917	10,871	9,901	6,587	10,168	37,690	26,671	47,033	
1981	218,003	172,278	23,307	10,934	10,152	7,445	10,312	37,277	26,570	46,281	
1982	221,921	172,166	24,038	11,319	10,813	9,171	10,136	36,688	25,667	44,334	
1983	229,456	175,548	25,204	11,968	10,955	10,600	9,976	36,740	26,561	43,544	
1984 ²	231,015	175,848	25,852	11,734	11,309	11,436	9,908	37,114	25,969	42,526	
1985 ²	233,992	178,096	26,669	11,334	11,816	13,861	9,250	37,001	25,335	42,830	
1986 ²	242,826	182,660	27,762	11,249	12,388	15,020	9,341	37,809	26,255	42,836	
1987 ²	247,205	185,273	28,412	10,435	13,043	15,336	9,094	38,235	27,256	43,462	
1988	250,657	187,650	28,574	10,192	13,512	15,133	9,122	39,209	28,118	43,790	
1989	256,906	192,531	29,207	10,021	13,681	15,606	9,070	40,348	29,348	45,250	
1990	265,399	199,422	29,485	10,244	13,865	16,689	9,100	40,945	30,618	48,476	
1991	277,174	206,140	30,117	10,373	14,256	16,516	9,289	42,700	32,258	50,631	
1992	290,510	216,084	30,673	10,986	14,679	17,486	9,452	44,389	34,162	54,257	
1993	294,030	220,233	30,611	11,367	14,530	17,374	9,468	46,481	34,782	55,620	
1994	293,048	221,482	30,043	11,470	14,226	16,674	9,492	48,017	35,288	56,272	
1995	287,253	219,479	28,902	11,275	13,410	16,490	9,620	48,330	35,222	56,230	
1996	284,194	218,343	27,956	10,826	12,966	17,173	9,298	47,744	35,468	56,912	
1997	280,612	215,018	26,892	10,550	12,153	18,320	9,110	46,998	35,522	55,473	
Engineering											
Engi- neering, total	Aerospace engineering	Chemical engineering	Civil engi- neering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallur- gical & materials engineering	Other engi- neering			
1975	37,762	1,245	3,515	7,363	8,278	4,152	4,931	1,787	6,491	17,387	
1976	36,882	1,165	3,691	7,025	8,147	3,578	4,919	1,860	6,497	18,585	
1977	37,156	1,187	3,873	7,094	8,528	3,343	4,883	1,951	6,297	20,324	
1978 ¹	37,505	1,140	3,938	7,335	8,509	3,249	4,950	1,973	6,411	21,248	
1979	39,967	1,152	4,218	7,623	9,039	3,743	5,428	2,135	6,629	22,746	
1980	42,627	1,327	4,490	7,958	9,963	3,736	5,841	2,254	7,058	23,983	
1981	45,725	1,483	4,989	8,799	10,450	3,603	6,422	2,454	7,525	24,073	
1982	49,755	1,522	5,608	9,381	11,533	3,807	7,267	2,478	8,159	22,875	
1983	53,908	1,840	5,869	9,804	13,265	3,288	8,330	2,704	8,808	22,599	
1984 ²	55,167	1,854	5,734	10,086	13,925	3,393	8,698	2,872	8,605	22,907	
1985 ²	55,896	1,994	5,546	9,749	14,799	3,456	8,875	3,093	8,384	23,295	
1986 ²	60,166	2,154	5,594	9,971	16,290	3,807	9,789	3,370	9,191	23,356	
1987 ²	61,932	2,372	5,674	9,628	17,101	4,156	10,230	3,436	9,335	23,861	
1988	63,007	2,533	5,359	9,946	17,706	4,295	10,416	3,466	9,286	24,537	
1989	64,375	2,772	5,282	9,964	18,466	4,658	10,492	3,720	9,021	25,813	
1990	65,977	3,010	5,443	10,128	18,675	4,770	10,867	3,930	9,154	27,431	
1991	71,034	3,325	5,788	11,328	19,904	5,598	11,687	4,058	9,346	29,866	
1992	74,426	3,306	5,946	12,454	20,996	6,081	12,383	4,274	8,986	32,099	
1993	73,797	3,262	6,041	12,458	20,370	5,902	12,395	4,249	9,120	35,649	
1994	71,566	3,000	6,105	12,641	19,412	5,910	11,875	4,108	8,515	39,081	
1995	67,774	2,693	5,957	12,248	18,187	5,342	11,128	3,880	8,339	41,895	
1996	65,851	2,576	5,909	11,791	17,989	5,128	10,690	3,693	8,075	44,259	
1997	65,594	2,529	5,784	11,259	18,926	5,071	10,432	3,661	7,932	46,230	

¹ Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 5. Male full-time graduate students in science, engineering, and health fields in all institutions,
by field: 1975-97**

Page 1 of 1

Year	Total, science and engi- neering	Sciences									Health fields
		Sciences, total	Physical sciences	Earth, atmos- pheric, & ocean sciences	Math- ematical sciences	Computer sciences	Agricul- tural sciences	Biological sciences	Psychology	Social sciences	
1975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976	156,169	121,312	19,205	8,457	8,476	4,006	7,945	26,183	14,591	32,449	
1977	154,398	119,499	19,293	8,641	8,083	3,845	7,903	25,866	13,949	31,919	
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1979	151,981	115,444	19,044	8,404	7,497	4,803	7,745	24,480	13,277	30,194	
1980	153,138	114,365	19,214	8,388	7,595	5,184	7,778	23,804	12,779	29,623	
1981	154,075	112,963	19,306	8,361	7,612	5,718	7,884	23,189	12,007	28,886	
1982	156,404	111,896	19,641	8,532	8,022	6,860	7,592	22,144	11,223	27,882	
1983	161,537	113,248	20,371	8,995	8,037	7,961	7,448	21,961	11,361	27,114	
1984 ²	162,399	113,279	20,755	8,876	8,328	8,693	7,328	22,012	10,714	26,573	
1985 ²	164,198	114,583	21,241	8,500	8,614	10,806	6,853	21,798	10,232	26,539	
1986 ²	169,871	116,675	22,022	8,336	8,984	11,703	6,955	21,992	10,263	26,420	
1987 ²	172,140	117,491	22,384	7,759	9,481	12,005	6,716	22,099	10,422	26,625	
1988	172,342	116,954	22,208	7,444	9,794	11,795	6,640	22,404	10,199	26,470	
1989	175,106	118,867	22,547	7,268	9,746	12,355	6,557	22,736	10,467	27,191	
1990	178,695	121,416	22,664	7,317	9,821	13,218	6,454	22,789	10,642	28,511	
1991	185,090	123,739	22,845	7,197	10,035	13,035	6,424	23,498	10,957	29,748	
1992	191,791	128,029	23,173	7,588	10,250	13,936	6,454	24,230	11,171	31,227	
1993	190,864	128,266	22,888	7,815	10,096	13,791	6,281	24,920	11,189	31,286	
1994	186,675	126,686	22,277	7,676	9,810	13,127	6,166	25,493	11,131	31,006	
1995	179,834	123,556	21,238	7,387	9,213	12,840	6,158	25,297	10,903	30,520	
1996	174,783	120,758	20,413	6,955	8,797	13,088	5,847	24,737	10,794	30,127	
1997	170,126	117,037	19,458	6,676	8,179	13,525	5,598	24,031	10,811	28,759	
Engineering											
Engi- neering, total	Aerospace engineering	Chemical engineering	Civil engi- neering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallur- gical & materials engineering	Other engi- neering			
1975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976	34,857	1,142	3,457	6,512	7,850	3,199	4,797	1,751	6,149	7,503	
1977	34,899	1,160	3,595	6,553	8,146	2,967	4,742	1,809	5,927	7,490	
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1979	36,537	1,116	3,789	6,729	8,585	3,164	5,170	1,922	6,062	7,595	
1980	38,773	1,273	4,025	7,059	9,405	3,071	5,525	2,023	6,392	7,725	
1981	41,112	1,432	4,456	7,673	9,739	2,915	6,075	2,167	6,655	7,403	
1982	44,508	1,449	4,936	8,140	10,715	3,042	6,834	2,170	7,222	6,869	
1983	48,289	1,760	5,100	8,509	12,302	2,673	7,847	2,380	7,718	6,678	
1984 ²	49,120	1,768	5,002	8,648	12,775	2,769	8,137	2,518	7,503	6,675	
1985 ²	49,615	1,868	4,792	8,257	13,591	2,821	8,316	2,654	7,316	6,747	
1986 ²	53,196	2,006	4,806	8,484	14,823	3,073	9,162	2,849	7,993	6,707	
1987 ²	54,649	2,205	4,800	8,230	15,552	3,422	9,498	2,867	8,075	7,292	
1988	55,388	2,365	4,567	8,381	16,024	3,559	9,581	2,887	8,024	7,231	
1989	56,239	2,592	4,486	8,315	16,644	3,751	9,637	3,081	7,733	7,685	
1990	57,279	2,811	4,547	8,347	16,719	3,862	10,019	3,238	7,736	8,029	
1991	61,351	3,071	4,803	9,309	17,739	4,556	10,745	3,316	7,812	8,450	
1992	63,762	3,043	4,849	10,126	18,570	4,906	11,297	3,467	7,504	9,033	
1993	62,598	2,971	4,875	9,934	17,926	4,729	11,210	3,447	7,506	9,926	
1994	59,989	2,722	4,912	9,855	17,021	4,612	10,658	3,268	6,941	10,753	
1995	56,278	2,417	4,734	9,431	15,747	4,191	9,993	3,064	6,701	11,367	
1996	54,025	2,293	4,594	8,937	15,441	4,037	9,500	2,878	6,345	12,350	
1997	53,089	2,226	4,425	8,353	16,096	3,973	9,143	2,806	6,067	13,081	

¹ Master's-granting institutions were not surveyed in 1978.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 6. Female full-time graduate students in science, engineering, and health fields in all institutions,
by field: 1975-97**

Page 1 of 1

Year	Total, science and engi- neering	Sciences									Health fields
		Sciences, total	Physical sciences	Earth, atmos- pheric, & ocean sciences	Math- ematical sciences	Computer sciences	Agricul- tural sciences	Biological sciences	Psychology	Social sciences	
1975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976	48,692	46,667	3,047	1,634	2,476	742	1,491	11,722	11,052	14,503	
1977	52,054	49,797	3,212	1,783	2,282	759	1,808	12,549	11,754	15,650	
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1979	57,063	53,633	3,491	2,221	2,170	1,050	2,207	13,516	12,571	16,407	
1980	61,327	57,473	3,703	2,483	2,306	1,403	2,390	13,886	13,892	17,410	
1981	63,928	59,315	4,001	2,573	2,540	1,727	2,428	14,088	14,563	17,395	
1982	65,517	60,270	4,397	2,787	2,791	2,311	2,544	14,544	14,444	16,452	
1983	67,919	62,300	4,833	2,973	2,918	2,639	2,528	14,779	15,200	16,430	
1984 ²	68,616	62,569	5,097	2,858	2,981	2,743	2,580	15,102	15,255	15,953	
1985 ²	69,794	63,513	5,428	2,834	3,202	3,055	2,397	15,203	15,103	16,291	
1986 ²	72,955	65,985	5,740	2,913	3,404	3,317	2,386	15,817	15,992	16,416	
1987 ²	75,065	67,782	6,028	2,676	3,562	3,331	2,378	16,136	16,834	16,837	
1988	78,315	70,696	6,366	2,748	3,718	3,338	2,482	16,805	17,919	17,320	
1989	81,800	73,664	6,660	2,753	3,935	3,251	2,513	17,612	18,881	18,059	
1990	86,704	78,006	6,821	2,927	4,044	3,471	2,646	18,156	19,976	19,965	
1991	92,084	82,401	7,272	3,176	4,221	3,481	2,865	19,202	21,301	20,883	
1992	98,719	88,055	7,500	3,398	4,429	3,550	2,998	20,159	22,991	23,030	
1993	103,166	91,967	7,723	3,552	4,434	3,583	3,187	21,561	23,593	24,334	
1994	106,373	94,796	7,766	3,794	4,416	3,547	3,326	22,524	24,157	25,266	
1995	107,419	95,923	7,664	3,888	4,197	3,650	3,462	23,033	24,319	25,710	
1996	109,411	97,585	7,543	3,871	4,169	4,085	3,451	23,007	24,674	26,785	
1997	110,486	97,981	7,434	3,874	3,974	4,795	3,512	22,967	24,711	26,714	
Engineering											
Engi- neering, total	Aerospace engineering	Chemical engineering	Civil engi- neering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallur- gical & materials engineering	Other engi- neering			
1975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976	2,025	23	234	513	297	379	122	109	348	11,082	
1977	2,257	27	278	541	382	376	141	142	370	12,834	
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1979	3,430	36	429	894	454	579	258	213	567	15,151	
1980	3,854	54	465	899	558	665	316	231	666	16,258	
1981	4,613	51	533	1,126	711	688	347	287	870	16,670	
1982	5,247	73	672	1,241	818	765	433	308	937	16,006	
1983	5,619	80	769	1,295	963	615	483	324	1,090	15,921	
1984 ²	6,047	86	732	1,438	1,150	624	561	354	1,102	16,232	
1985 ²	6,281	126	754	1,492	1,208	635	559	439	1,068	16,548	
1986 ²	6,970	148	788	1,487	1,467	734	627	521	1,198	16,649	
1987 ²	7,283	167	874	1,398	1,549	734	732	569	1,260	16,569	
1988	7,619	168	792	1,565	1,682	736	835	579	1,262	17,306	
1989	8,136	180	796	1,649	1,822	907	855	639	1,288	18,128	
1990	8,698	199	896	1,781	1,956	908	848	692	1,418	19,402	
1991	9,683	254	985	2,019	2,165	1,042	942	742	1,534	21,416	
1992	10,664	263	1,097	2,328	2,426	1,175	1,086	807	1,482	23,066	
1993	11,199	291	1,166	2,524	2,444	1,173	1,185	802	1,614	25,723	
1994	11,577	278	1,193	2,786	2,391	1,298	1,217	840	1,574	28,328	
1995	11,496	276	1,223	2,817	2,440	1,151	1,135	816	1,638	30,528	
1996	11,826	283	1,315	2,854	2,548	1,091	1,190	815	1,730	31,909	
1997	12,505	303	1,359	2,906	2,830	1,098	1,289	855	1,865	33,149	

¹ Master's-granting institutions were not surveyed in 1978.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 7. Full-time graduate students with U.S. citizenship in science, engineering, and health fields
in all institutions, by field: 1975-97**

Page 1 of 1

Year	Total, science and engi- neering	Sciences									Health fields
		Sciences, total	Physical sciences	Earth, atmos- pheric, & ocean sciences	Math- ematical sciences	Computer sciences	Agricul- tural sciences	Biological sciences	Psychology	Social sciences	
1975 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1977 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	166,192	141,456	17,186	9,484	6,647	4,521	7,872	33,171	25,461	37,114	
1981	165,662	139,618	17,049	9,439	6,511	4,887	7,873	32,490	25,566	35,803	
1982	166,743	138,270	17,584	9,693	6,926	5,981	7,676	31,720	24,588	34,102	
1983	169,927	138,772	18,009	10,299	6,714	6,677	7,446	31,283	25,468	32,876	
1984 ²	169,916	137,969	18,292	10,164	6,772	6,982	7,420	31,374	24,924	32,041	
1985 ²	168,281	136,457	18,186	9,669	6,995	8,327	6,854	30,715	24,179	31,532	
1986 ²	170,447	137,217	18,264	9,382	7,243	8,912	6,743	30,663	25,085	30,925	
1987 ²	171,169	137,246	18,384	8,496	7,549	8,863	6,434	30,255	26,044	31,221	
1988	170,236	136,725	18,130	8,040	7,738	8,415	6,443	30,244	26,802	30,913	
1989	173,420	139,351	18,107	7,717	7,697	8,616	6,393	30,367	28,021	32,433	
1990	177,804	143,340	17,836	7,813	7,961	8,742	6,215	30,286	29,133	35,354	
1991	185,487	148,396	18,267	7,802	8,380	8,426	6,405	31,102	30,634	37,380	
1992	197,473	157,575	18,759	8,309	8,939	8,852	6,590	32,558	32,548	41,020	
1993	204,484	163,261	19,231	8,680	9,056	8,985	6,661	34,520	33,196	42,932	
1994	206,851	165,684	19,130	8,608	8,876	8,731	6,680	36,228	33,430	44,001	
1995	204,163	165,564	18,410	8,689	8,291	8,610	6,866	37,196	33,574	43,928	
1996	200,783	164,295	17,639	8,430	7,885	8,374	6,725	37,229	33,845	44,168	
1997	196,041	161,197	16,796	8,328	7,277	8,649	6,741	36,764	33,855	42,787	
Engineering											
Engi- neering, total	Aerospace engineering	Chemical engineering	Civil engi- neering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallur- gical & materials engineering	Other engi- neering			
1975 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1977 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	24,736	759	2,500	4,670	5,666	2,297	3,211	1,147	4,486	21,950	
1981	26,044	882	2,787	5,162	5,665	2,029	3,363	1,342	4,814	21,938	
1982	28,473	945	3,267	5,428	6,421	2,190	3,767	1,297	5,158	20,586	
1983	31,155	1,088	3,630	5,544	7,398	1,933	4,327	1,530	5,705	20,201	
1984 ²	31,947	1,115	3,603	5,687	7,890	1,934	4,591	1,663	5,464	20,561	
1985 ²	31,824	1,258	3,337	5,282	8,137	1,874	4,858	1,805	5,273	20,762	
1986 ²	33,230	1,343	3,412	5,303	8,572	2,053	5,218	1,854	5,475	20,665	
1987 ²	33,923	1,559	3,353	5,090	9,002	2,145	5,559	1,829	5,386	21,103	
1988	33,511	1,502	2,957	5,208	9,295	2,227	5,299	1,805	5,218	21,485	
1989	34,069	1,757	2,668	5,097	9,723	2,426	5,632	1,890	4,876	22,527	
1990	34,464	1,870	2,668	5,375	9,652	2,374	5,781	1,985	4,759	23,875	
1991	37,091	2,201	2,798	6,140	9,976	2,760	6,120	2,067	5,029	26,105	
1992	39,898	2,246	2,948	7,003	10,577	3,076	6,803	2,247	4,998	28,406	
1993	41,223	2,178	3,107	7,440	10,428	3,209	7,228	2,264	5,369	31,832	
1994	41,167	1,862	3,370	7,848	10,467	3,180	7,090	2,335	5,015	35,448	
1995	38,599	1,611	3,304	7,652	9,382	2,863	6,548	2,158	5,081	38,268	
1996	36,488	1,417	3,368	7,509	8,714	2,512	6,024	1,961	4,983	40,289	
1997	34,844	1,327	3,263	7,007	8,521	2,394	5,591	1,894	4,847	42,240	

¹ Distribution by citizenship data were not requested before 1980.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 8. Full-time graduate students without U.S. citizenship in science, engineering, and health fields
in all institutions, by field: 1975-97**

Page 1 of 1

Year	Total, science and engi- neering	Sciences									Health fields
		Sciences, total	Physical sciences	Earth, atmos- pheric, & ocean sciences	Math- ematical sciences	Computer sciences	Agricul- tural sciences	Biological sciences	Psychology	Social sciences	
1975 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1977 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	48,273	30,382	5,731	1,387	3,254	2,066	2,296	4,519	1,210	9,919	
1981	52,341	32,660	6,258	1,495	3,641	2,558	2,439	4,787	1,004	10,478	
1982	55,178	33,896	6,454	1,626	3,887	3,190	2,460	4,968	1,079	10,232	
1983	59,529	36,776	7,195	1,669	4,241	3,923	2,530	5,457	1,093	10,668	
1984 ²	61,099	37,879	7,560	1,570	4,537	4,454	2,488	5,740	1,045	10,485	
1985 ²	65,711	41,639	8,483	1,665	4,821	5,534	2,396	6,286	1,156	11,298	
1986 ²	72,379	45,443	9,498	1,867	5,145	6,108	2,598	7,146	1,170	11,911	
1987 ²	76,036	48,027	10,028	1,939	5,494	6,473	2,660	7,980	1,212	12,241	
1988	80,421	50,925	10,444	2,152	5,774	6,718	2,679	8,965	1,316	12,877	
1989	83,486	53,180	11,100	2,304	5,984	6,990	2,677	9,981	1,327	12,817	
1990	87,595	56,082	11,649	2,431	5,904	7,947	2,885	10,659	1,485	13,122	
1991	91,687	57,744	11,850	2,571	5,876	8,090	2,884	11,598	1,624	13,251	
1992	93,037	58,509	11,914	2,677	5,740	8,634	2,862	11,831	1,614	13,237	
1993	89,546	56,972	11,380	2,687	5,474	8,389	2,807	11,961	1,586	12,688	
1994	86,197	55,798	10,913	2,862	5,350	7,943	2,812	11,789	1,858	12,271	
1995	83,090	53,915	10,492	2,586	5,119	7,880	2,754	11,134	1,648	12,302	
1996	83,411	54,048	10,317	2,396	5,081	8,799	2,573	10,515	1,623	12,744	
1997	84,571	53,821	10,096	2,222	4,876	9,671	2,369	10,234	1,667	12,686	
Engineering											
Engi- neering, total	Aerospace engineering	Chemical engineering	Civil engi- neering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallur- gical & materials engineering	Other engi- neering			
1975 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1977 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1978 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979 ¹	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	17,891	568	1,990	3,288	4,297	1,439	2,630	1,107	2,572	2,033	
1981	19,681	601	2,202	3,637	4,785	1,574	3,059	1,112	2,711	2,135	
1982	21,282	577	2,341	3,953	5,112	1,617	3,500	1,181	3,001	2,289	
1983	22,753	752	2,239	4,260	5,867	1,355	4,003	1,174	3,103	2,398	
1984 ²	23,220	739	2,131	4,399	6,035	1,459	4,107	1,209	3,141	2,346	
1985 ²	24,072	736	2,209	4,467	6,662	1,582	4,017	1,288	3,111	2,533	
1986 ²	26,936	811	2,182	4,668	7,718	1,754	4,571	1,516	3,716	2,691	
1987 ²	28,009	813	2,321	4,538	8,099	2,011	4,671	1,607	3,949	2,758	
1988	29,496	1,031	2,402	4,738	8,411	2,068	5,117	1,661	4,068	3,052	
1989	30,306	1,015	2,614	4,867	8,743	2,232	4,860	1,830	4,145	3,286	
1990	31,513	1,140	2,775	4,753	9,023	2,396	5,086	1,945	4,395	3,556	
1991	33,943	1,124	2,990	5,188	9,928	2,838	5,567	1,991	4,317	3,761	
1992	34,528	1,060	2,998	5,451	10,419	3,005	5,580	2,027	3,988	3,693	
1993	32,574	1,084	2,934	5,018	9,942	2,693	5,167	1,985	3,751	3,817	
1994	30,399	1,138	2,735	4,793	8,945	2,730	4,785	1,773	3,500	3,633	
1995	29,175	1,082	2,653	4,596	8,805	2,479	4,580	1,722	3,258	3,627	
1996	29,363	1,159	2,541	4,282	9,275	2,616	4,666	1,732	3,092	3,970	
1997	30,750	1,202	2,521	4,252	10,405	2,677	4,841	1,767	3,085	3,990	

¹ Distribution by citizenship data were not requested before 1980.

² These figures include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984-87. See "Technical Notes" for further information.

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: NA = Not available

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 9. Graduate students in science, engineering, and health fields in all institutions,
by detailed field: 1990-97**

Page 1 of 2

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	452,178	471,262	493,632	504,449	504,542	499,732	494,219	487,104
Total, science and engineering fields	397,135	412,697	430,644	435,886	431,251	422,555	415,363	407,644
Sciences, total	289,510	299,121	312,609	319,028	318,228	315,356	312,140	306,636
Physical sciences, total	34,075	34,710	35,348	35,318	34,449	33,417	32,355	31,108
Astronomy	810	829	869	880	973	912	874	778
Chemistry	19,118	19,407	19,929	20,131	19,797	19,594	19,358	18,794
Physics	13,813	14,081	14,122	13,841	13,162	12,425	11,728	11,147
Physical sciences, n.e.c.	334	393	428	466	517	486	395	389
Earth, atmos., & ocean sci., total	13,984	14,480	15,347	15,805	16,042	15,805	15,280	14,644
Atmospheric sciences	929	968	1,089	1,112	1,109	1,072	1,086	1,092
Geosciences	7,692	7,567	7,744	7,785	7,741	7,608	7,323	6,997
Oceanography	2,333	2,386	2,530	2,611	2,853	2,703	2,598	2,458
Earth, atmos., & ocean sci., n.e.c.	3,030	3,559	3,984	4,297	4,339	4,422	4,273	4,097
Mathematical sciences, total	19,774	19,952	20,355	20,000	19,579	18,509	18,015	16,759
Mathematics & applied mathematics	17,096	17,206	17,404	16,945	16,463	15,400	14,970	14,078
Statistics	2,678	2,746	2,951	3,055	3,116	3,109	3,045	2,681
Computer sciences	34,257	34,610	36,293	36,189	34,128	33,432	34,592	36,010
Agricultural sciences	11,316	11,506	11,827	11,914	12,199	12,367	11,914	11,810
Biological sciences, total	49,989	51,778	54,177	56,452	58,143	58,736	58,128	57,135
Anatomy	1,000	1,051	1,030	1,027	1,079	1,056	1,111	1,094
Biochemistry	5,039	5,201	5,376	5,513	5,632	5,550	5,265	5,093
Biology	13,027	13,292	13,874	14,327	14,220	14,284	14,635	14,643
Biometry/epidemiology	1,871	2,032	2,365	2,658	2,710	2,812	3,001	2,900
Biophysics	642	697	751	780	794	845	833	748
Botany	2,733	2,694	2,689	2,714	2,748	2,609	2,504	2,402
Cell biology	2,555	2,809	3,093	3,374	3,768	3,890	3,896	3,981
Ecology	1,136	1,180	1,301	1,410	1,566	1,680	1,615	1,659
Entomology/parasitology	1,173	1,171	1,193	1,247	1,263	1,241	1,234	1,161
Genetics	1,408	1,520	1,639	1,785	1,699	1,700	1,729	1,760
Microbio., immunology, & virology	4,873	4,928	4,972	5,068	5,141	5,072	4,963	4,854
Nutrition	4,172	4,164	4,159	4,388	4,747	5,016	4,859	4,550
Pathology	1,354	1,449	1,456	1,575	1,707	1,670	1,656	1,674
Pharmacology	2,353	2,432	2,529	2,645	2,830	2,700	2,652	2,582
Physiology	2,236	2,332	2,317	2,372	2,378	2,540	2,377	2,298
Zoology	2,104	2,191	2,139	2,120	2,092	2,068	1,911	1,730
Biosciences, n.e.c.	2,313	2,635	3,294	3,449	3,769	4,003	3,887	4,006
Psychology, total	48,167	51,343	53,484	54,557	54,554	53,641	53,209	53,142
Psychology, general	20,108	19,555	18,802	18,887	18,297	17,666	16,894	17,375
Clinical psychology	9,916	10,834	12,090	12,526	12,684	12,519	12,787	12,893
Psychology, n.e.c.	18,143	20,954	22,592	23,144	23,573	23,456	23,528	22,874
Social sciences, total	77,948	80,742	85,778	88,793	89,134	89,449	88,647	86,028
Agricultural economics	2,273	2,364	2,522	2,415	2,289	2,338	2,117	2,043
Anthropology (cultural & social)	6,479	6,731	7,123	7,361	7,665	7,693	7,773	7,558
Economics (except agricultural)	12,326	12,707	13,252	13,214	12,913	12,673	12,080	11,069
Geography	3,530	3,760	4,102	4,378	4,502	4,371	4,331	4,287
History and philosophy of science	331	337	360	369	387	401	409	443
Linguistics	3,404	3,425	3,277	3,321	3,279	3,194	3,156	3,008
Political science	30,582	31,707	33,797	35,076	34,317	34,298	33,252	32,039
Sociology	7,801	8,393	9,011	9,425	9,498	9,564	9,425	9,423
Sociology/anthropology	1,164	899	979	935	987	941	923	948
Social sciences, n.e.c.	10,058	10,419	11,355	12,299	13,297	13,976	15,181	15,210
Engineering, total	107,625	113,576	118,035	116,858	113,023	107,199	103,223	101,008
Aerospace engineering	3,934	4,120	4,036	3,940	3,715	3,343	3,208	3,083
Agricultural engineering	946	983	1,008	1,018	1,061	1,037	1,012	941
Biomedical engineering	2,136	2,239	2,537	2,675	2,750	2,732	2,732	2,847
Chemical engineering	6,735	7,127	7,397	7,516	7,608	7,424	7,373	7,247
Civil engineering	15,542	17,398	19,572	19,583	19,925	19,218	18,528	17,033
Electrical engineering	33,722	35,182	36,460	35,314	33,050	30,747	29,736	30,617
Engineering science	2,020	2,154	2,218	2,180	2,089	1,955	1,751	1,647
Industrial/manufacturing eng.	11,248	12,676	13,525	13,596	13,661	13,143	12,399	11,725
Mechanical engineering	16,879	17,730	18,637	18,477	17,761	16,363	15,509	15,044
Metallurgical/materials eng.	4,941	5,160	5,512	5,363	5,191	4,920	4,713	4,649
Mining engineering	437	489	437	427	424	373	371	348
Nuclear engineering	1,278	1,282	1,286	1,306	1,246	1,154	980	868
Petroleum engineering	670	705	737	725	624	610	562	565
Engineering, n.e.c.	7,137	6,331	4,673	4,738	3,918	4,180	4,349	4,394

See explanatory information, if any, and SOURCE at end of table.

**Table 9. Graduate students in science, engineering, and health fields in all institutions,
by detailed field: 1990-97**

Page 2 of 2

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, health fields	55,043	58,565	62,988	68,563	73,291	77,177	78,856	79,460
Medical fields, total	10,950	11,707	12,594	14,184	15,027	15,521	15,320	15,234
Anesthesiology	391	529	708	719	729	749	754	840
Cardiology	0	2	8	11	14	19	18	48
Oncology/cancer research	113	156	197	209	208	189	185	198
Endocrinology	74	66	71	63	63	53	46	43
Gastroenterology	1	0	0	1	0	0	0	3
Hematology	4	4	5	3	2	1	3	3
Neurology	844	1,003	1,149	1,311	1,455	1,554	1,632	1,696
Obstetrics and gynecology	5	10	3	3	4	6	4	18
Ophthalmology	37	32	27	19	32	30	33	33
Otorhinolaryngology	4	3	0	1	2	0	0	2
Pediatrics	140	153	154	196	261	238	275	434
Preventive medicine/community health	8,167	8,423	8,737	9,976	10,459	10,858	10,543	10,000
Psychiatry	122	104	147	172	225	249	218	249
Pulmonary disease	0	0	0	0	0	0	0	0
Radiology	196	233	252	287	320	314	285	267
Surgery	65	69	76	82	119	174	167	244
Clinical medicine, n.e.c.	787	920	1,060	1,131	1,134	1,087	1,157	1,156
Other health fields, total	44,093	46,858	50,394	54,379	58,264	61,656	63,536	64,226
Dental sciences	956	1,016	1,121	1,135	1,199	1,251	1,291	1,434
Nursing	21,194	22,012	23,213	24,781	26,997	28,405	27,388	26,679
Pharmaceutical sciences	2,889	2,968	2,804	2,871	2,901	2,948	2,975	3,051
Speech pathology/audiology	8,354	8,945	9,791	10,740	11,473	12,092	12,973	13,320
Veterinary sciences	900	894	942	877	875	929	946	1,175
Health related, n.e.c.	9,800	11,023	12,523	13,975	14,819	16,031	17,963	18,567

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 10. Male graduate students in science, engineering, and health fields in all institutions,
by detailed field: 1990-97**

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	275,678	284,898	294,234	294,502	288,373	279,406	271,738	264,421
Total, science and engineering fields	263,394	271,845	280,397	279,289	272,120	262,341	253,629	245,615
Sciences, total	170,441	173,984	179,595	180,123	177,146	173,156	168,658	163,322
Physical sciences, total	26,007	26,146	26,504	26,116	25,290	24,327	23,303	22,257
Astronomy	645	657	683	682	750	689	647	570
Chemistry	13,250	13,145	13,367	13,279	12,956	12,759	12,511	12,066
Physics	11,900	12,101	12,179	11,865	11,254	10,590	9,919	9,403
Physical sciences, n.e.c.	212	243	275	290	330	289	226	218
Earth, atmos., & ocean sci., total	9,865	10,025	10,489	10,745	10,689	10,336	9,786	9,187
Atmospheric sciences	744	778	848	887	867	835	852	829
Geosciences	5,770	5,559	5,667	5,675	5,506	5,310	4,991	4,686
Oceanography	1,552	1,540	1,571	1,607	1,746	1,609	1,539	1,415
Earth, atmos., & ocean sci., n.e.c.	1,799	2,148	2,403	2,576	2,570	2,582	2,404	2,257
Mathematical sciences	13,575	13,654	13,806	13,362	13,044	12,248	11,794	10,875
Computer sciences	26,058	26,340	27,838	27,767	26,043	25,306	25,802	26,133
Agricultural sciences	7,981	7,939	8,059	7,826	7,911	7,935	7,502	7,277
Biological sciences, total	26,947	27,643	28,702	29,399	29,988	29,890	29,360	28,513
Anatomy	542	550	537	534	554	549	586	580
Biochemistry	2,974	3,070	3,158	3,182	3,250	3,143	2,982	2,922
Biology	7,078	7,080	7,295	7,520	7,476	7,395	7,511	7,370
Biometry/epidemiology	874	920	1,037	1,132	1,124	1,139	1,227	1,119
Biophysics	478	515	549	554	576	604	589	532
Botany	1,661	1,627	1,635	1,620	1,584	1,465	1,394	1,283
Cell biology	1,435	1,528	1,687	1,802	2,038	2,097	2,071	2,091
Ecology	667	662	712	746	821	906	847	867
Entomology/parasitology	815	830	839	847	846	827	810	751
Genetics	681	761	797	853	787	818	828	801
Microbio., immunology, & virology	2,553	2,576	2,606	2,600	2,632	2,591	2,506	2,431
Nutrition	1,231	1,244	1,208	1,244	1,267	1,287	1,231	1,138
Pathology	776	825	809	834	925	890	847	842
Pharmacology	1,329	1,302	1,348	1,404	1,484	1,395	1,366	1,362
Physiology	1,303	1,366	1,366	1,389	1,392	1,482	1,396	1,364
Zoology	1,269	1,307	1,311	1,260	1,216	1,202	1,091	974
Biosciences, n.e.c.	1,281	1,480	1,808	1,878	2,016	2,100	2,078	2,086
Psychology	15,822	16,556	16,650	16,567	16,416	15,877	15,403	15,499
Social sciences, total	44,186	45,681	47,547	48,341	47,765	47,237	45,708	43,581
Agricultural economics	1,674	1,728	1,810	1,665	1,541	1,555	1,407	1,355
Anthropology (cultural & social)	2,688	2,778	2,876	2,969	3,072	3,140	3,087	3,058
Economics (except agricultural)	8,952	9,148	9,450	9,358	9,120	8,797	8,297	7,563
Geography	2,326	2,442	2,671	2,796	2,904	2,786	2,770	2,662
Linguistics	1,398	1,512	1,281	1,301	1,213	1,194	1,133	1,034
Political science	17,425	17,971	18,826	19,320	18,733	18,348	17,620	16,655
Sociology	3,522	3,781	3,861	3,857	3,758	3,781	3,640	3,592
Sociology/anthropology	483	410	445	423	396	387	382	377
Social sciences, other	5,718	5,911	6,327	6,652	7,028	7,249	7,372	7,285
Engineering, total	92,953	97,861	100,802	99,166	94,974	89,185	84,971	82,293
Aerospace engineering	3,645	3,793	3,688	3,583	3,357	2,992	2,856	2,712
Agricultural engineering	845	858	864	867	861	835	802	723
Biomedical engineering	1,589	1,651	1,920	1,977	2,053	2,006	1,999	2,021
Chemical engineering	5,589	5,870	6,003	6,017	6,082	5,863	5,731	5,538
Civil engineering	12,853	14,296	15,918	15,725	15,714	14,986	14,228	12,874
Electrical engineering	30,007	31,311	32,167	30,992	28,946	26,652	25,607	26,158
Engineering science	1,721	1,866	1,913	1,876	1,783	1,658	1,456	1,369
Industrial/manufacturing eng.	9,111	10,321	10,870	11,003	10,866	10,388	9,685	9,115
Mechanical engineering	15,437	16,219	16,939	16,703	15,938	14,686	13,873	13,265
Metallurgical/materials eng.	4,048	4,173	4,443	4,336	4,122	3,861	3,653	3,555
Nuclear engineering	1,123	1,105	1,100	1,121	1,093	1,009	827	725
Engineering, other	6,985	6,398	4,977	4,966	4,159	4,249	4,254	4,238
Total, health fields	12,284	13,053	13,837	15,213	16,253	17,065	18,109	18,806
Clinical fields	1,017	1,150	1,289	1,353	1,373	1,348	1,407	1,527
Dental sciences	677	717	772	786	819	819	831	893
Nursing	1,017	1,128	1,168	1,285	1,506	1,661	1,765	2,032
Pharmaceutical sciences	1,748	1,729	1,621	1,592	1,591	1,602	1,564	1,526
Preventive medicine/community health	3,174	3,265	3,334	3,892	4,108	4,198	4,249	4,007
Speech pathology/audiology	736	708	777	856	935	983	1,042	1,075
Veterinary sciences	512	528	536	470	467	490	505	586
Other health fields	3,403	3,828	4,340	4,979	5,454	5,964	6,746	7,160

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 11. Female graduate students in science, engineering, and health fields in all institutions,
by detailed field: 1990-97**

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	176,500	186,364	199,398	209,947	216,169	220,326	222,481	222,683
Total, science and engineering fields	133,741	140,852	150,247	156,597	159,131	160,214	161,734	162,029
Sciences, total	119,069	125,137	133,014	138,905	141,082	142,200	143,482	143,314
Physical sciences, total	8,068	8,564	8,844	9,202	9,159	9,090	9,052	8,851
Astronomy	165	172	186	198	223	223	227	208
Chemistry	5,868	6,262	6,562	6,852	6,841	6,835	6,847	6,728
Physics	1,913	1,980	1,943	1,976	1,908	1,835	1,809	1,744
Physical sciences, n.e.c.	122	150	153	176	187	197	169	171
Earth, atmos., & ocean sci., total	4,119	4,455	4,858	5,060	5,353	5,469	5,494	5,457
Atmospheric sciences	185	190	241	225	242	237	234	263
Geosciences	1,922	2,008	2,077	2,110	2,235	2,298	2,332	2,311
Oceanography	781	846	959	1,004	1,107	1,094	1,059	1,043
Earth, atmos., & ocean sci., n.e.c.	1,231	1,411	1,581	1,721	1,769	1,840	1,869	1,840
Mathematical sciences	6,199	6,298	6,549	6,638	6,535	6,261	6,221	5,884
Computer sciences	8,199	8,270	8,455	8,422	8,085	8,126	8,790	9,877
Agricultural sciences	3,335	3,567	3,768	4,088	4,288	4,432	4,412	4,533
Biological sciences, total	23,042	24,135	25,475	27,053	28,155	28,846	28,768	28,622
Anatomy	458	501	493	493	525	507	525	514
Biochemistry	2,065	2,131	2,218	2,331	2,382	2,407	2,283	2,171
Biology	5,949	6,212	6,579	6,807	6,744	6,889	7,124	7,273
Biometry/epidemiology	997	1,112	1,328	1,526	1,586	1,673	1,774	1,781
Biophysics	164	182	202	226	218	241	244	216
Botany	1,072	1,067	1,054	1,094	1,164	1,144	1,110	1,119
Cell biology	1,120	1,281	1,406	1,572	1,730	1,793	1,825	1,890
Ecology	469	518	589	664	745	774	768	792
Entomology/parasitology	358	341	354	400	417	414	424	410
Genetics	727	759	842	932	912	882	901	959
Microbio., immunology, & virology	2,320	2,352	2,366	2,468	2,509	2,481	2,457	2,423
Nutrition	2,941	2,920	2,951	3,144	3,480	3,729	3,628	3,412
Pathology	578	624	647	741	782	780	809	832
Pharmacology	1,024	1,130	1,181	1,241	1,346	1,305	1,286	1,220
Physiology	933	966	951	983	986	1,058	981	934
Zoology	835	884	828	860	876	866	820	756
Biosciences, n.e.c.	1,032	1,155	1,486	1,571	1,753	1,903	1,809	1,920
Psychology	32,345	34,787	36,834	37,990	38,138	37,764	37,806	37,643
Social sciences, total	33,762	35,061	38,231	40,452	41,369	42,212	42,939	42,447
Agricultural economics	599	636	712	750	748	783	710	688
Anthropology (cultural & social)	3,791	3,953	4,247	4,392	4,593	4,553	4,686	4,500
Economics (except agricultural)	3,374	3,559	3,802	3,856	3,793	3,876	3,783	3,506
Geography	1,204	1,318	1,431	1,582	1,598	1,585	1,561	1,625
Linguistics	2,006	1,913	1,996	2,020	2,066	2,000	2,023	1,974
Political science	13,157	13,736	14,971	15,756	15,584	15,950	15,632	15,384
Sociology	4,279	4,612	5,150	5,568	5,740	5,783	5,785	5,831
Sociology/anthropology	681	489	534	512	591	554	541	571
Social sciences, other	4,671	4,845	5,388	6,016	6,656	7,128	8,218	8,368
Engineering, total	14,672	15,715	17,233	17,692	18,049	18,014	18,252	18,715
Aerospace engineering	289	327	348	357	358	351	352	371
Agricultural engineering	101	125	144	151	200	202	210	218
Biomedical engineering	547	588	617	698	697	726	733	826
Chemical engineering	1,146	1,257	1,394	1,499	1,526	1,561	1,642	1,709
Civil engineering	2,689	3,102	3,654	3,858	4,211	4,232	4,300	4,159
Electrical engineering	3,715	3,871	4,293	4,322	4,104	4,095	4,129	4,459
Engineering science	299	288	305	304	306	297	295	278
Industrial/manufacturing eng.	2,137	2,355	2,655	2,593	2,795	2,755	2,714	2,610
Mechanical engineering	1,442	1,511	1,698	1,774	1,823	1,677	1,636	1,779
Metallurgical/materials eng.	893	987	1,069	1,027	1,069	1,059	1,060	1,094
Nuclear engineering	155	177	186	185	153	145	153	143
Engineering, other	1,259	1,127	870	924	807	914	1,028	1,069
Total, health fields	42,759	45,512	49,151	53,350	57,038	60,112	60,747	60,654
Clinical fields	922	1,131	1,419	1,544	1,740	1,761	1,738	2,011
Dental sciences	279	299	349	349	380	432	460	541
Nursing	20,177	20,884	22,045	23,496	25,491	26,744	25,623	24,647
Pharmaceutical sciences	1,141	1,239	1,183	1,279	1,310	1,346	1,411	1,525
Preventive medicine/community health	4,993	5,158	5,403	6,084	6,351	6,660	6,294	5,993
Speech pathology/audiology	7,618	8,237	9,014	9,884	10,538	11,109	11,931	12,245
Veterinary sciences	388	366	406	407	408	439	441	589
Other health fields	7,241	8,198	9,332	10,307	10,820	11,621	12,849	13,103

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 12. Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97

Page 1 of 3

Field, citizenship, and racial/ethnic background	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	452,178	471,262	493,632	504,449	504,542	499,732	494,219	487,104
Total U.S. citizens	345,108	358,073	379,704	394,115	397,984	396,838	391,228	383,412
Black, non-Hispanic	15,216	16,407	18,487	20,439	21,177	22,154	22,976	23,534
American Indian/Alaskan Native	1,270	1,365	1,515	1,606	1,725	1,857	1,907	1,968
Asian/Pacific Islander	18,801	20,059	23,966	26,849	29,616	29,361	29,943	30,399
Hispanic	12,014	13,053	14,625	16,052	15,967	17,264	17,834	18,107
White, non-Hispanic	281,558	288,813	302,169	309,257	311,987	304,438	297,159	286,410
Other or unknown	16,249	18,376	18,942	19,912	17,512	21,764	21,409	22,994
Non-U.S. citizens	107,070	113,189	113,928	110,334	106,558	102,894	102,991	103,692
Total, science and engineering	397,135	412,697	430,644	435,886	431,251	422,555	415,363	407,644
Total U.S. citizens	294,318	304,063	321,182	330,169	329,095	324,017	317,209	308,835
Black, non-Hispanic	12,774	13,691	15,445	17,118	17,611	18,283	19,071	19,363
American Indian/Alaskan Native	1,054	1,120	1,243	1,309	1,383	1,516	1,539	1,599
Asian/Pacific Islander	17,155	18,136	21,752	24,059	26,474	25,901	25,947	26,078
Hispanic	10,159	11,045	12,246	13,381	13,281	14,117	14,638	14,988
White, non-Hispanic	238,472	243,602	253,435	256,859	255,719	245,889	238,077	227,936
Other or unknown	14,704	16,469	17,061	17,443	14,627	18,311	17,937	18,871
Non-U.S. citizens	102,817	108,634	109,462	105,717	102,156	98,538	98,154	98,809
Sciences, total	289,510	299,121	312,609	319,028	318,228	315,356	312,140	306,636
Total U.S. citizens	224,892	231,830	244,587	252,578	253,056	252,285	249,015	244,249
Black, non-Hispanic	10,988	11,666	13,071	14,559	14,827	15,427	16,176	16,489
American Indian/Alaskan Native	902	935	1,066	1,098	1,141	1,285	1,305	1,361
Asian/Pacific Islander	10,468	11,020	13,260	15,072	16,697	16,893	17,510	17,924
Hispanic	8,273	8,921	9,783	10,687	10,420	11,309	11,703	12,177
White, non-Hispanic	185,265	188,818	196,039	199,419	199,699	193,933	188,965	181,919
Other or unknown	8,996	10,470	11,368	11,743	10,272	13,438	13,356	14,379
Non-U.S. citizens	64,618	67,291	68,022	66,450	65,172	63,071	63,125	62,387
Physical sciences	34,075	34,710	35,348	35,318	34,449	33,417	32,355	31,108
Total U.S. citizens	21,609	21,985	22,543	23,066	22,740	21,992	21,159	20,194
Black, non-Hispanic	654	699	807	843	856	897	986	952
American Indian/Alaskan Native	63	62	67	81	67	76	60	70
Asian/Pacific Islander	1,200	1,429	1,615	1,973	1,923	1,780	1,743	1,638
Hispanic	642	649	680	747	675	732	743	784
White, non-Hispanic	18,433	18,402	18,527	18,582	18,422	17,487	16,762	15,749
Other or unknown	617	744	847	840	797	1,020	865	1,001
Non-U.S. citizens	12,466	12,725	12,805	12,252	11,709	11,425	11,196	10,914
Earth, atmospheric, & ocean sciences	13,984	14,480	15,347	15,805	16,042	15,805	15,280	14,644
Total U.S. citizens	11,309	11,583	12,343	12,795	12,776	12,858	12,513	12,128
Black, non-Hispanic	123	141	202	227	203	219	223	206
American Indian/Alaskan Native	30	29	35	46	49	53	65	82
Asian/Pacific Islander	258	267	383	469	454	425	411	417
Hispanic	241	250	308	371	344	366	381	407
White, non-Hispanic	10,375	10,531	10,893	11,145	11,351	11,322	10,956	10,486
Other or unknown	282	365	522	537	375	473	477	530
Non-U.S. citizens	2,675	2,897	3,004	3,010	3,266	2,947	2,767	2,516
Mathematical sciences	19,774	19,952	20,355	20,000	19,579	18,509	18,015	16,759
Total U.S. citizens	13,210	13,318	13,878	13,866	13,516	12,700	12,254	11,211
Black, non-Hispanic	511	524	579	710	673	689	711	657
American Indian/Alaskan Native	20	20	27	32	36	70	41	43
Asian/Pacific Islander	822	866	963	1,020	1,208	1,121	1,225	1,052
Hispanic	351	349	376	415	369	400	425	426
White, non-Hispanic	10,605	10,457	10,851	10,572	10,496	9,659	9,201	8,382
Other or unknown	901	1,102	1,082	1,117	734	761	651	651
Non-U.S. citizens	6,564	6,634	6,477	6,134	6,063	5,809	5,761	5,548
Computer sciences	34,257	34,610	36,293	36,189	34,128	33,432	34,592	36,010
Total U.S. citizens	23,351	22,988	24,163	24,269	23,064	22,638	22,737	23,202
Black, non-Hispanic	985	1,093	1,108	1,168	1,182	1,155	1,278	1,303
American Indian/Alaskan Native	44	42	72	68	43	55	53	60
Asian/Pacific Islander	2,888	2,858	3,399	3,566	4,056	4,053	4,269	4,702
Hispanic	565	631	706	696	633	664	701	726
White, non-Hispanic	17,292	16,464	16,893	16,760	15,709	14,739	14,443	14,050
Other or unknown	1,577	1,900	1,985	2,011	1,441	1,972	1,993	2,361
Non-U.S. citizens	10,906	11,622	12,130	11,920	11,064	10,794	11,855	12,808

See explanatory information, if any, and SOURCE at end of table.

Table 12. Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97

Page 2 of 3

Field, citizenship, and racial/ethnic background	1990	1991	1992	1993	1994	1995	1996	1997
Agricultural sciences	11,316	11,506	11,827	11,914	12,199	12,367	11,914	11,810
Total U.S. citizens	8,133	8,298	8,649	8,778	9,060	9,270	8,966	9,085
Black, non-Hispanic	158	145	209	235	239	294	268	229
American Indian/Alaskan Native	20	31	39	34	37	59	49	62
Asian/Pacific Islander	242	225	215	264	276	274	281	302
Hispanic	272	279	279	308	263	288	367	400
White, non-Hispanic	7,251	7,481	7,679	7,731	7,972	7,978	7,732	7,745
Other or unknown	190	137	228	206	273	377	269	347
Non-U.S. citizens	3,183	3,208	3,178	3,136	3,139	3,097	2,948	2,725
Biological sciences	49,989	51,778	54,177	56,452	58,143	58,736	58,128	57,135
Total U.S. citizens	38,470	39,282	41,358	43,525	45,314	46,528	46,638	45,969
Black, non-Hispanic	1,249	1,317	1,493	1,737	1,709	1,879	2,010	2,171
American Indian/Alaskan Native	142	129	141	157	183	205	200	198
Asian/Pacific Islander	2,228	2,346	2,822	3,456	3,953	4,299	4,464	4,478
Hispanic	1,220	1,374	1,459	1,649	1,651	1,823	1,847	1,983
White, non-Hispanic	32,677	33,058	34,229	35,094	36,389	36,509	36,327	35,041
Other or unknown	954	1,058	1,214	1,432	1,429	1,813	1,790	2,098
Non-U.S. citizens	11,519	12,496	12,819	12,927	12,829	12,208	11,490	11,166
Psychology	48,167	51,343	53,484	54,557	54,554	53,641	53,209	53,142
Total U.S. citizens	46,349	49,355	51,551	52,676	52,211	51,554	51,236	51,137
Black, non-Hispanic	2,226	2,455	2,758	3,284	3,529	3,359	3,455	3,641
American Indian/Alaskan Native	235	252	290	289	317	330	359	340
Asian/Pacific Islander	962	1,040	1,278	1,470	1,583	1,598	1,776	1,892
Hispanic	2,160	2,365	2,371	2,562	2,485	2,799	3,002	3,084
White, non-Hispanic	39,246	40,990	42,426	42,662	42,062	40,146	39,327	38,699
Other or unknown	1,520	2,253	2,428	2,409	2,235	3,322	3,317	3,481
Non-U.S. citizens	1,818	1,988	1,933	1,881	2,343	2,087	1,973	2,005
Social sciences	77,948	80,742	85,778	88,793	89,134	89,449	88,647	86,028
Total U.S. citizens	62,461	65,021	70,102	73,603	74,375	74,745	73,512	71,323
Black, non-Hispanic	5,082	5,292	5,915	6,355	6,436	6,935	7,245	7,330
American Indian/Alaskan Native	348	370	395	391	409	437	478	506
Asian/Pacific Islander	1,868	1,989	2,585	2,854	3,244	3,343	3,341	3,443
Hispanic	2,822	3,024	3,604	3,939	4,000	4,237	4,237	4,367
White, non-Hispanic	49,386	51,435	54,541	56,873	57,298	56,093	54,217	51,767
Other or unknown	2,955	2,911	3,062	3,191	2,988	3,700	3,994	3,910
Non-U.S. citizens	15,487	15,721	15,676	15,190	14,759	14,704	15,135	14,705
Engineering, total	107,625	113,576	118,035	116,858	113,023	107,199	103,223	101,008
Total U.S. citizens	69,426	72,233	76,595	77,591	76,039	71,732	68,194	64,586
Black, non-Hispanic	1,786	2,025	2,374	2,559	2,784	2,856	2,895	2,874
American Indian/Alaskan Native	152	185	177	211	242	231	234	238
Asian/Pacific Islander	6,687	7,116	8,492	8,987	9,777	9,008	8,437	8,154
Hispanic	1,886	2,124	2,463	2,694	2,861	2,808	2,935	2,811
White, non-Hispanic	53,207	54,784	57,396	57,440	56,020	51,956	49,112	46,017
Other or unknown	5,708	5,999	5,693	5,700	4,355	4,873	4,581	4,492
Non-U.S. citizens	38,199	41,343	41,440	39,267	36,984	35,467	35,029	36,422
Chemical engineering	6,735	7,127	7,397	7,516	7,608	7,424	7,373	7,247
Total U.S. citizens	3,791	3,939	4,122	4,348	4,601	4,473	4,505	4,403
Black, non-Hispanic	84	119	144	159	157	174	189	170
American Indian/Alaskan Native	5	22	15	14	18	21	30	18
Asian/Pacific Islander	316	399	379	461	524	458	482	512
Hispanic	143	159	176	180	171	202	200	142
White, non-Hispanic	3,151	3,140	3,236	3,388	3,521	3,420	3,381	3,343
Other or unknown	92	100	172	146	210	198	223	218
Non-U.S. citizens	2,944	3,188	3,275	3,168	3,007	2,951	2,868	2,844
Civil engineering	15,542	17,398	19,572	19,583	19,925	19,218	18,528	17,033
Total U.S. citizens	9,628	10,854	12,734	13,299	13,967	13,559	13,263	12,009
Black, non-Hispanic	232	279	343	393	424	471	491	443
American Indian/Alaskan Native	37	34	31	43	38	42	48	58
Asian/Pacific Islander	760	837	1,043	1,167	1,339	1,322	1,254	1,046
Hispanic	302	383	478	550	551	593	712	693
White, non-Hispanic	7,727	8,684	10,196	10,415	11,029	10,434	9,983	9,142
Other or unknown	570	637	643	731	586	697	775	627
Non-U.S. citizens	5,914	6,544	6,838	6,284	5,958	5,659	5,265	5,024

See explanatory information, if any, and SOURCE at end of table.

Table 12. Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97

Page 3 of 3

Field, citizenship, and racial/ethnic background	1990	1991	1992	1993	1994	1995	1996	1997
Electrical engineering	33,722	35,182	36,460	35,314	33,050	30,747	29,736	30,617
Total U.S. citizens	22,127	22,366	23,627	22,874	21,644	19,529	18,374	17,948
Black, non-Hispanic	612	669	771	863	861	821	775	869
American Indian/Alaskan Native	49	39	38	45	53	52	51	46
Asian/Pacific Islander	3,050	3,026	3,755	3,737	4,088	3,697	3,540	3,481
Hispanic	576	661	748	841	853	784	792	810
White, non-Hispanic	15,662	15,571	15,996	15,650	14,336	12,640	11,769	11,106
Other or unknown	2,178	2,400	2,319	1,738	1,453	1,535	1,447	1,636
Non-U.S. citizens	11,595	12,816	12,833	12,440	11,406	11,218	11,362	12,669
Industrial engineering	11,248	12,676	13,525	13,596	13,661	13,143	12,399	11,725
Total U.S. citizens	8,129	8,902	9,682	10,153	10,095	9,819	9,102	8,388
Black, non-Hispanic	294	384	444	440	507	527	521	478
American Indian/Alaskan Native	23	39	42	36	23	23	21	23
Asian/Pacific Islander	450	586	794	863	852	837	737	729
Hispanic	231	253	297	332	375	374	410	390
White, non-Hispanic	6,407	7,016	7,375	7,448	7,483	7,025	6,676	6,199
Other or unknown	724	624	730	1,034	855	1,033	737	569
Non-U.S. citizens	3,119	3,774	3,843	3,443	3,566	3,324	3,297	3,337
Mechanical engineering	16,879	17,730	18,637	18,477	17,761	16,363	15,509	15,044
Total U.S. citizens	10,799	11,056	11,875	12,199	11,940	10,905	10,026	9,350
Black, non-Hispanic	247	246	320	336	398	403	417	428
American Indian/Alaskan Native	15	21	24	30	54	44	35	35
Asian/Pacific Islander	830	985	1,179	1,307	1,421	1,225	1,073	947
Hispanic	282	338	394	382	453	422	383	360
White, non-Hispanic	8,238	8,416	9,035	9,029	8,893	8,059	7,461	6,978
Other or unknown	1,187	1,050	923	1,115	721	752	657	602
Non-U.S. citizens	6,080	6,674	6,762	6,278	5,821	5,458	5,483	5,694
Other engineering	23,499	23,463	22,444	22,372	21,018	20,304	19,678	19,342
Total U.S. citizens	14,952	15,116	14,555	14,718	13,792	13,447	12,924	12,488
Black, non-Hispanic	317	328	352	368	437	460	502	486
American Indian/Alaskan Native	23	30	27	43	56	49	49	58
Asian/Pacific Islander	1,281	1,283	1,342	1,452	1,553	1,469	1,351	1,439
Hispanic	352	330	370	409	458	433	438	416
White, non-Hispanic	12,022	11,957	11,558	11,510	10,758	10,378	9,842	9,249
Other or unknown	957	1,188	906	936	530	658	742	840
Non-U.S. citizens	8,547	8,347	7,889	7,654	7,226	6,857	6,754	6,854
Total, health fields	55,043	58,565	62,988	68,563	73,291	77,177	78,856	79,460
Total U.S. citizens	50,790	54,010	58,522	63,946	68,889	72,821	74,019	74,577
Black, non-Hispanic	2,442	2,716	3,042	3,321	3,566	3,871	3,905	4,171
American Indian/Alaskan Native	216	245	272	297	342	341	368	369
Asian/Pacific Islander	1,646	1,923	2,214	2,790	3,142	3,460	3,996	4,321
Hispanic	1,855	2,008	2,379	2,671	2,686	3,147	3,196	3,119
White, non-Hispanic	43,086	45,211	48,734	52,398	56,268	58,549	59,082	58,474
Other or unknown	1,545	1,907	1,881	2,469	2,885	3,453	3,472	4,123
Non-U.S. citizens	4,253	4,555	4,466	4,617	4,402	4,356	4,837	4,883

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 13. Graduate students in science, engineering, and health fields in all institutions, by sex, field, and citizenship, and by racial/ethnic background of U.S. citizens: 1994-97

Page 1 of 4

Sex, field, and year	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens		
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown			
Total enrollment										
Total, all surveyed fields:										
1994	504,542	21,177	1,725	29,616	15,967	311,987	17,512	106,558		
1995	499,732	22,154	1,857	29,361	17,264	304,438	21,764	102,894		
1996	494,219	22,976	1,907	29,943	17,834	297,159	21,409	102,991		
1997	487,104	23,534	1,968	30,399	18,107	286,410	22,994	103,692		
Total, science and engineering fields:										
1994	431,251	17,611	1,383	26,474	13,281	255,719	14,627	102,156		
1995	422,555	18,283	1,516	25,901	14,117	245,889	18,311	98,538		
1996	415,363	19,071	1,539	25,947	14,638	238,077	17,937	98,154		
1997	407,644	19,363	1,599	26,078	14,988	227,936	18,871	98,809		
Sciences, total:										
1994	318,228	14,827	1,141	16,697	10,420	199,699	10,272	65,172		
1995	315,356	15,427	1,285	16,893	11,309	193,933	13,438	63,071		
1996	312,140	16,176	1,305	17,510	11,703	188,965	13,356	63,125		
1997	306,636	16,489	1,361	17,924	12,177	181,919	14,379	62,387		
Physical sciences:										
1994	34,449	856	67	1,923	675	18,422	797	11,709		
1995	33,417	897	76	1,780	732	17,487	1,020	11,425		
1996	32,355	986	60	1,743	743	16,762	865	11,196		
1997	31,108	952	70	1,638	784	15,749	1,001	10,914		
Earth, atmospheric, & ocean sciences:										
1994	16,042	203	49	454	344	11,351	375	3,266		
1995	15,805	219	53	425	366	11,322	473	2,947		
1996	15,280	223	65	411	381	10,956	477	2,767		
1997	14,644	206	82	417	407	10,486	530	2,516		
Mathematical sciences:										
1994	19,579	673	36	1,208	369	10,496	734	6,063		
1995	18,509	689	70	1,121	400	9,659	761	5,809		
1996	18,015	711	41	1,225	425	9,201	651	5,761		
1997	16,759	657	43	1,052	426	8,382	651	5,548		
Computer sciences:										
1994	34,128	1,182	43	4,056	633	15,709	1,441	11,064		
1995	33,432	1,155	55	4,053	664	14,739	1,972	10,794		
1996	34,592	1,278	53	4,269	701	14,443	1,993	11,855		
1997	36,010	1,303	60	4,702	726	14,050	2,361	12,808		
Agricultural sciences:										
1994	12,199	239	37	276	263	7,972	273	3,139		
1995	12,367	294	59	274	288	7,978	377	3,097		
1996	11,914	268	49	281	367	7,732	269	2,948		
1997	11,810	229	62	302	400	7,745	347	2,725		
Biological sciences:										
1994	58,143	1,709	183	3,953	1,651	36,389	1,429	12,829		
1995	58,736	1,879	205	4,299	1,823	36,509	1,813	12,208		
1996	58,128	2,010	200	4,464	1,847	36,327	1,790	11,490		
1997	57,135	2,171	198	4,478	1,983	35,041	2,098	11,166		
Psychology:										
1994	54,554	3,529	317	1,583	2,485	42,062	2,235	2,343		
1995	53,641	3,359	330	1,598	2,799	40,146	3,322	2,087		
1996	53,209	3,455	359	1,776	3,002	39,327	3,317	1,973		
1997	53,142	3,641	340	1,892	3,084	38,699	3,481	2,005		
Social sciences:										
1994	89,134	6,436	409	3,244	4,000	57,298	2,988	14,759		
1995	89,449	6,935	437	3,343	4,237	56,093	3,700	14,704		
1996	88,647	7,245	478	3,341	4,237	54,217	3,994	15,135		
1997	86,028	7,330	506	3,443	4,367	51,767	3,910	14,705		

See explanatory information, if any, and SOURCE at end of table.

Table 13. Graduate students in science, engineering, and health fields in all institutions, by sex, field, and citizenship, and by racial/ethnic background of U.S. citizens: 1994-97

Page 2 of 4

Sex, field, and year	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens		
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown			
Total enrollment										
Engineering:										
1994	113,023	2,784	242	9,777	2,861	56,020	4,355	36,984		
1995	107,199	2,856	231	9,008	2,808	51,956	4,873	35,467		
1996	103,223	2,895	234	8,437	2,935	49,112	4,581	35,029		
1997	101,008	2,874	238	8,154	2,811	46,017	4,492	36,422		
Health fields:										
1994	73,291	3,566	342	3,142	2,686	56,268	2,885	4,402		
1995	77,177	3,871	341	3,460	3,147	58,549	3,453	4,356		
1996	78,856	3,905	368	3,996	3,196	59,082	3,472	4,837		
1997	79,460	4,171	369	4,321	3,119	58,474	4,123	4,883		
Men										
Total, all surveyed fields:										
1994	288,373	8,669	771	18,187	7,836	164,645	9,868	78,397		
1995	279,406	8,934	834	17,487	8,188	157,487	12,022	74,454		
1996	271,738	8,974	863	17,274	8,474	151,294	11,353	73,506		
1997	264,421	9,111	890	17,193	8,512	143,683	12,037	72,995		
Total, science and engineering fields:										
1994	272,120	8,049	693	17,152	7,198	153,625	9,136	76,267		
1995	262,341	8,211	753	16,371	7,406	146,057	11,181	72,362		
1996	253,629	8,253	768	15,953	7,673	139,370	10,588	71,024		
1997	245,615	8,344	804	15,769	7,696	131,453	11,008	70,541		
Sciences, total:										
1994	177,146	6,082	514	9,190	4,917	106,833	5,483	44,127		
1995	173,156	6,254	571	9,143	5,210	102,983	7,069	41,926		
1996	168,658	6,301	577	9,297	5,407	98,885	6,785	41,406		
1997	163,322	6,385	624	9,406	5,525	93,702	7,385	40,295		
Physical sciences:										
1994	25,290	497	49	1,253	444	13,745	562	8,740		
1995	24,327	529	57	1,159	470	13,004	722	8,386		
1996	23,303	550	42	1,096	455	12,387	621	8,152		
1997	22,257	508	46	1,045	500	11,571	689	7,898		
Earth, atmospheric, & ocean sciences:										
1994	10,689	118	26	297	214	7,403	242	2,389		
1995	10,336	117	32	264	224	7,247	302	2,150		
1996	9,786	116	36	250	233	6,865	292	1,994		
1997	9,187	105	47	253	240	6,413	332	1,797		
Mathematical sciences:										
1994	13,044	343	24	735	241	6,824	503	4,374		
1995	12,248	385	43	669	248	6,230	520	4,153		
1996	11,794	368	24	702	266	5,910	425	4,099		
1997	10,875	348	29	624	256	5,335	441	3,842		
Computer sciences:										
1994	26,043	696	36	2,695	473	12,442	1,053	8,648		
1995	25,306	652	40	2,715	502	11,664	1,535	8,198		
1996	25,802	718	39	2,836	524	11,412	1,481	8,792		
1997	26,133	768	43	3,050	516	10,909	1,711	9,136		
Agricultural sciences:										
1994	7,911	118	20	168	142	5,002	165	2,296		
1995	7,935	150	29	147	154	4,988	235	2,232		
1996	7,502	131	23	142	203	4,734	168	2,101		
1997	7,277	105	34	164	242	4,639	189	1,904		
Biological sciences:										
1994	29,988	671	77	2,022	769	18,470	714	7,265		
1995	29,890	691	87	2,165	854	18,393	963	6,737		
1996	29,360	725	93	2,257	852	18,290	943	6,200		
1997	28,513	783	91	2,170	900	17,496	1,058	6,015		

See explanatory information, if any, and SOURCE at end of table.

Table 13. Graduate students in science, engineering, and health fields in all institutions, by sex, field, and citizenship, and by racial/ethnic background of U.S. citizens: 1994-97

Page 3 of 4

Sex, field, and year	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens		
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown			
Men										
Psychology:										
1994	16,416	851	97	435	705	12,712	675	941		
1995	15,877	817	93	416	762	11,983	949	857		
1996	15,403	810	111	469	829	11,574	902	708		
1997	15,499	908	118	506	860	11,300	1,058	749		
Social sciences:										
1994	47,765	2,788	185	1,585	1,929	30,235	1,569	9,474		
1995	47,237	2,913	190	1,608	1,996	29,474	1,843	9,213		
1996	45,708	2,883	209	1,545	2,045	27,713	1,953	9,360		
1997	43,581	2,860	216	1,594	2,011	26,039	1,907	8,954		
Engineering:										
1994	94,974	1,967	179	7,962	2,281	46,792	3,653	32,140		
1995	89,185	1,957	182	7,228	2,196	43,074	4,112	30,436		
1996	84,971	1,952	191	6,656	2,266	40,485	3,803	29,618		
1997	82,293	1,959	180	6,363	2,171	37,751	3,623	30,246		
Health fields:										
1994	16,253	620	78	1,035	638	11,020	732	2,130		
1995	17,065	723	81	1,116	782	11,430	841	2,092		
1996	18,109	721	95	1,321	801	11,924	765	2,482		
1997	18,806	767	86	1,424	816	12,230	1,029	2,454		
Women										
Total, all surveyed fields:										
1994	216,169	12,508	954	11,429	8,131	147,342	7,644	28,161		
1995	220,326	13,220	1,023	11,874	9,076	146,951	9,742	28,440		
1996	222,481	14,002	1,044	12,669	9,360	145,865	10,056	29,485		
1997	222,683	14,423	1,078	13,206	9,595	142,727	10,957	30,697		
Total, science and engineering fields:										
1994	159,131	9,562	690	9,322	6,083	102,094	5,491	25,889		
1995	160,214	10,072	763	9,530	6,711	99,832	7,130	26,176		
1996	161,734	10,818	771	9,994	6,965	98,707	7,349	27,130		
1997	162,029	11,019	795	10,309	7,292	96,483	7,863	28,268		
Sciences, total:										
1994	141,082	8,745	627	7,507	5,503	92,866	4,789	21,045		
1995	142,200	9,173	714	7,750	6,099	90,950	6,369	21,145		
1996	143,482	9,875	728	8,213	6,296	90,080	6,571	21,719		
1997	143,314	10,104	737	8,518	6,652	88,217	6,994	22,092		
Physical sciences:										
1994	9,159	359	18	670	231	4,677	235	2,969		
1995	9,090	368	19	621	262	4,483	298	3,039		
1996	9,052	436	18	647	288	4,375	244	3,044		
1997	8,851	444	24	593	284	4,178	312	3,016		
Earth, atmospheric, & ocean sciences:										
1994	5,353	85	23	157	130	3,948	133	877		
1995	5,469	102	21	161	142	4,075	171	797		
1996	5,494	107	29	161	148	4,091	185	773		
1997	5,457	101	35	164	167	4,073	198	719		
Mathematical sciences:										
1994	6,535	330	12	473	128	3,672	231	1,689		
1995	6,261	304	27	452	152	3,429	241	1,656		
1996	6,221	343	17	523	159	3,291	226	1,662		
1997	5,884	309	14	428	170	3,047	210	1,706		
Computer sciences:										
1994	8,085	486	7	1,361	160	3,267	388	2,416		
1995	8,126	503	15	1,338	162	3,075	437	2,596		
1996	8,790	560	14	1,433	177	3,031	512	3,063		
1997	9,877	535	17	1,652	210	3,141	650	3,672		

See explanatory information, if any, and SOURCE at end of table.

Table 13. Graduate students in science, engineering, and health fields in all institutions, by sex, field, and citizenship, and by racial/ethnic background of U.S. citizens: 1994-97

Page 4 of 4

Sex, field, and year	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens		
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown			
Women										
Agricultural sciences:										
1994	4,288	121	17	108	121	2,970	108	843		
1995	4,432	144	30	127	134	2,990	142	865		
1996	4,412	137	26	139	164	2,998	101	847		
1997	4,533	124	28	138	158	3,106	158	821		
Biological sciences:										
1994	28,155	1,038	106	1,931	882	17,919	715	5,564		
1995	28,846	1,188	118	2,134	969	18,116	850	5,471		
1996	28,768	1,285	107	2,207	995	18,037	847	5,290		
1997	28,622	1,388	107	2,308	1,083	17,545	1,040	5,151		
Psychology:										
1994	38,138	2,678	220	1,148	1,780	29,350	1,560	1,402		
1995	37,764	2,542	237	1,182	2,037	28,163	2,373	1,230		
1996	37,806	2,645	248	1,307	2,173	27,753	2,415	1,265		
1997	37,643	2,733	222	1,386	2,224	27,399	2,423	1,256		
Social sciences:										
1994	41,369	3,648	224	1,659	2,071	27,063	1,419	5,285		
1995	42,212	4,022	247	1,735	2,241	26,619	1,857	5,491		
1996	42,939	4,362	269	1,796	2,192	26,504	2,041	5,775		
1997	42,447	4,470	290	1,849	2,356	25,728	2,003	5,751		
Engineering:										
1994	18,049	817	63	1,815	580	9,228	702	4,844		
1995	18,014	899	49	1,780	612	8,882	761	5,031		
1996	18,252	943	43	1,781	669	8,627	778	5,411		
1997	18,715	915	58	1,791	640	8,266	869	6,176		
Health fields:										
1994	57,038	2,946	264	2,107	2,048	45,248	2,153	2,272		
1995	60,112	3,148	260	2,344	2,365	47,119	2,612	2,264		
1996	60,747	3,184	273	2,675	2,395	47,158	2,707	2,355		
1997	60,654	3,404	283	2,897	2,303	46,244	3,094	2,429		

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 14. Graduate students in science, engineering, and health fields in public institutions,
by detailed field: 1990-97**

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	316,781	330,251	345,759	353,017	353,662	350,331	345,756	340,306
Total, science and engineering fields	275,938	287,076	299,547	303,363	300,537	294,750	288,282	282,654
Sciences, total	201,722	207,826	216,723	221,017	220,739	218,844	215,375	211,547
Physical sciences, total	24,726	25,193	25,687	25,773	25,128	24,527	23,646	22,721
Astronomy	536	546	561	579	591	556	525	471
Chemistry	13,823	13,980	14,426	14,649	14,435	14,402	14,179	13,837
Physics	10,054	10,281	10,283	10,090	9,618	9,114	8,561	8,041
Physical sciences, n.e.c.	313	386	417	455	484	455	381	372
Earth, atmos., & ocean sci., total	11,591	11,928	12,683	13,077	13,189	13,255	12,885	12,425
Atmospheric sciences	901	948	1,064	1,094	1,090	1,047	1,066	1,068
Geosciences	6,301	6,207	6,356	6,384	6,327	6,279	6,063	5,802
Oceanography	1,919	1,953	2,076	2,134	2,294	2,263	2,184	2,067
Earth, atmos., & ocean sci., n.e.c.	2,470	2,820	3,187	3,465	3,478	3,666	3,572	3,488
Mathematical sciences	15,514	15,602	15,910	15,645	15,204	14,253	13,878	12,765
Computer sciences	20,166	20,867	21,547	21,535	20,560	20,532	20,848	22,218
Agricultural sciences	10,830	10,986	11,332	11,430	11,637	11,842	11,422	11,347
Biological sciences, total	36,793	37,951	39,748	41,403	42,529	42,486	42,006	41,117
Anatomy	715	765	742	760	805	779	793	778
Biochemistry	3,464	3,545	3,655	3,701	3,914	3,891	3,730	3,610
Biology	9,492	9,843	10,313	10,795	10,754	10,621	10,979	10,878
Biometry/epidemiology	1,082	1,226	1,562	1,728	1,732	1,724	1,777	1,734
Biophysics	356	387	417	426	415	472	459	419
Botany	2,564	2,522	2,559	2,573	2,626	2,469	2,367	2,258
Cell biology	1,442	1,587	1,824	2,089	2,285	2,358	2,371	2,359
Ecology	1,030	1,032	1,123	1,234	1,387	1,490	1,450	1,513
Entomology/parasitology	1,105	1,102	1,127	1,186	1,193	1,179	1,171	1,101
Genetics	998	1,058	1,133	1,147	1,083	1,077	1,119	1,144
Microbio., immunology, & virology	3,641	3,570	3,556	3,582	3,617	3,554	3,451	3,366
Nutrition	3,465	3,464	3,450	3,523	3,731	3,884	3,786	3,632
Pathology	928	1,016	1,007	1,012	1,079	1,056	1,059	1,063
Pharmacology	1,634	1,672	1,757	1,871	1,979	1,872	1,797	1,750
Physiology	1,498	1,530	1,526	1,559	1,521	1,548	1,439	1,373
Zoology	1,970	2,036	1,997	1,976	1,951	1,914	1,780	1,598
Biosciences, n.e.c.	1,409	1,596	2,000	2,241	2,457	2,598	2,478	2,541
Psychology	27,634	28,483	29,642	29,574	29,503	29,197	28,290	28,628
Social sciences, total	54,468	56,816	60,174	62,580	62,989	62,752	62,400	60,326
Agricultural economics	2,158	2,249	2,404	2,303	2,174	2,205	2,031	1,973
Anthropology (cultural & social)	4,737	4,965	5,205	5,457	5,646	5,602	5,678	5,492
Economics (except agricultural)	7,959	8,375	8,747	8,768	8,598	8,355	7,953	7,225
Geography	3,343	3,561	3,799	4,052	4,168	4,077	4,013	3,994
Linguistics	2,394	2,382	2,442	2,486	2,419	2,383	2,281	2,168
Political science	20,032	20,757	21,871	22,625	21,983	21,869	21,115	20,297
Sociology	5,909	6,481	6,880	7,167	7,243	7,271	7,220	7,210
Sociology/anthropology	825	615	690	738	796	749	737	779
Social sciences, other	7,111	7,431	8,136	8,984	9,962	10,241	11,372	11,188
Engineering, total	74,216	79,250	82,824	82,346	79,798	75,906	72,907	71,107
Aerospace engineering	2,982	3,241	3,199	3,126	2,917	2,598	2,435	2,332
Agricultural engineering	898	943	967	970	1,006	981	959	893
Biomedical engineering	1,284	1,317	1,535	1,639	1,641	1,656	1,700	1,844
Chemical engineering	4,845	5,166	5,413	5,532	5,592	5,440	5,348	5,173
Civil engineering	11,688	13,136	14,752	14,743	14,948	14,534	14,091	13,040
Electrical engineering	21,142	22,475	23,610	23,066	21,943	20,636	19,523	20,126
Engineering science	1,226	1,367	1,470	1,432	1,368	1,294	1,252	1,122
Industrial/manufacturing eng.	7,174	8,390	9,095	9,228	9,193	8,593	8,105	7,580
Mechanical engineering	11,825	12,769	13,656	13,489	12,992	12,144	11,595	11,166
Metallurgical/materials eng.	3,194	3,461	3,769	3,741	3,667	3,454	3,313	3,269
Nuclear engineering	1,073	1,093	1,081	1,094	1,062	975	826	751
Engineering, other	6,885	5,892	4,277	4,286	3,469	3,601	3,760	3,811
Total, health fields	40,843	43,175	46,212	49,654	53,125	55,581	57,474	57,652
Clinical fields	1,322	1,385	1,620	1,670	1,845	1,832	1,952	2,173
Dental sciences	746	791	840	862	919	925	992	1,113
Nursing	15,999	16,709	17,689	19,094	21,232	22,116	21,505	20,955
Pharmaceutical sciences	2,218	2,243	2,258	2,349	2,335	2,385	2,429	2,489
Preventive medicine/community health	5,641	5,927	6,079	6,860	6,929	7,254	7,135	6,596
Speech pathology/audiology	7,162	7,635	8,227	8,800	9,423	9,918	10,778	11,063
Veterinary sciences	821	821	880	802	807	875	894	1,123
Other health fields	6,934	7,664	8,619	9,217	9,635	10,276	11,789	12,140

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 15. Graduate students in science, engineering, and health fields in private institutions,
by detailed field: 1990-97**

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	135,397	141,011	147,873	151,432	150,880	149,401	148,463	146,798
Total, science and engineering fields	121,197	125,621	131,097	132,523	130,714	127,805	127,081	124,990
Sciences, total	87,788	91,295	95,886	98,011	97,489	96,512	96,765	95,089
Physical sciences, total	9,349	9,517	9,661	9,545	9,321	8,890	8,709	8,387
Astronomy	274	283	308	301	382	356	349	307
Chemistry	5,295	5,427	5,503	5,482	5,362	5,192	5,179	4,957
Physics	3,759	3,800	3,839	3,751	3,544	3,311	3,167	3,106
Physical sciences, n.e.c.	21	7	11	11	33	31	14	17
Earth, atmos., & ocean sci., total	2,393	2,552	2,664	2,728	2,853	2,550	2,395	2,219
Atmospheric sciences	28	20	25	18	19	25	20	24
Geosciences	1,391	1,360	1,388	1,401	1,414	1,329	1,260	1,195
Oceanography	414	433	454	477	559	440	414	391
Earth, atmos., & ocean sci., n.e.c.	560	739	797	832	861	756	701	609
Mathematical sciences	4,260	4,350	4,445	4,355	4,375	4,256	4,137	3,994
Computer sciences	14,091	13,743	14,746	14,654	13,568	12,900	13,744	13,792
Agricultural sciences	486	520	495	484	562	525	492	463
Biological sciences, total	13,196	13,827	14,429	15,049	15,614	16,250	16,122	16,018
Anatomy	285	286	288	267	274	277	318	316
Biochemistry	1,575	1,656	1,721	1,812	1,718	1,659	1,535	1,483
Biology	3,535	3,449	3,561	3,532	3,466	3,663	3,656	3,765
Biometry/epidemiology	789	806	803	930	978	1,088	1,224	1,166
Biophysics	286	310	334	354	379	373	374	329
Botany	169	172	130	141	122	140	137	144
Cell biology	1,113	1,222	1,269	1,285	1,483	1,532	1,525	1,622
Ecology	106	148	178	176	179	190	165	146
Entomology/parasitology	68	69	66	61	70	62	63	60
Genetics	410	462	506	638	616	623	610	616
Microbio., immunology, & virology	1,232	1,358	1,416	1,486	1,524	1,518	1,512	1,488
Nutrition	707	700	709	865	1,016	1,132	1,073	918
Pathology	426	433	449	563	628	614	597	611
Pharmacology	719	760	772	774	851	828	855	832
Physiology	738	802	791	813	857	992	938	925
Zoology	134	155	142	144	141	154	131	132
Biosciences, n.e.c.	904	1,039	1,294	1,208	1,312	1,405	1,409	1,465
Psychology	20,533	22,860	23,842	24,983	25,051	24,444	24,919	24,514
Social sciences, total	23,480	23,926	25,604	26,213	26,145	26,697	26,247	25,702
Agricultural economics	115	115	118	112	115	133	86	70
Anthropology (cultural & social)	1,742	1,766	1,918	1,904	2,019	2,091	2,095	2,066
Economics (except agricultural)	4,367	4,332	4,505	4,446	4,315	4,318	4,127	3,844
Geography	187	199	303	326	334	294	318	293
Linguistics	1,010	1,043	835	835	860	811	875	840
Political science	10,550	10,950	11,926	12,451	12,334	12,429	12,137	11,742
Sociology	1,892	1,912	2,131	2,258	2,255	2,293	2,205	2,213
Sociology/anthropology	339	284	289	197	191	192	186	169
Social sciences, other	3,278	3,325	3,579	3,684	3,722	4,136	4,218	4,465
Engineering, total	33,409	34,326	35,211	34,512	33,225	31,293	30,316	29,901
Aerospace engineering	952	879	837	814	798	745	773	751
Agricultural engineering	48	40	41	48	55	56	53	48
Biomedical engineering	852	922	1,002	1,036	1,109	1,076	1,032	1,003
Chemical engineering	1,890	1,961	1,984	1,984	2,016	1,984	2,025	2,074
Civil engineering	3,854	4,262	4,820	4,840	4,977	4,684	4,437	3,993
Electrical engineering	12,580	12,707	12,850	12,248	11,107	10,111	10,213	10,491
Engineering science	794	787	748	748	721	661	499	525
Industrial/manufacturing eng.	4,074	4,286	4,430	4,368	4,468	4,550	4,294	4,145
Mechanical engineering	5,054	4,961	4,981	4,988	4,769	4,219	3,914	3,878
Metallurgical/materials eng.	1,747	1,699	1,743	1,622	1,524	1,466	1,400	1,380
Nuclear engineering	205	189	205	212	184	179	154	117
Engineering, other	1,359	1,633	1,570	1,604	1,497	1,562	1,522	1,496
Total, health fields	14,200	15,390	16,776	18,909	20,166	21,596	21,382	21,808
Clinical fields	617	896	1,088	1,227	1,268	1,277	1,193	1,365
Dental sciences	210	225	281	273	280	326	299	321
Nursing	5,195	5,303	5,524	5,687	5,765	6,289	5,883	5,724
Pharmaceutical sciences	671	725	546	522	566	563	546	562
Preventive medicine/community health	2,526	2,496	2,658	3,116	3,530	3,604	3,408	3,404
Speech pathology/audiology	1,192	1,310	1,564	1,940	2,050	2,174	2,195	2,257
Veterinary sciences	79	73	62	75	68	54	52	52
Other health fields	3,710	4,362	5,053	6,069	6,639	7,309	7,806	8,123

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 16. Graduate students in science and engineering fields in all institutions,
by field and Carnegie classification: 1990-97**

Page 1 of 2

Carnegie classification and field	1990	1991	1992	1993	1994	1995	1996	1997
All institutions:								
Total, science and engineering fields	397,135	412,697	430,644	435,886	431,251	422,555	415,363	407,644
Sciences, total	289,510	299,121	312,609	319,028	318,228	315,356	312,140	306,636
Physical sciences	34,075	34,710	35,348	35,318	34,449	33,417	32,355	31,108
Earth, atmospheric, & ocean sciences	13,984	14,480	15,347	15,805	16,042	15,805	15,280	14,644
Mathematical sciences	19,774	19,952	20,355	20,000	19,579	18,509	18,015	16,759
Computer sciences	34,257	34,610	36,293	36,189	34,128	33,432	34,592	36,010
Agricultural sciences	11,316	11,506	11,827	11,914	12,199	12,367	11,914	11,810
Biological sciences	49,989	51,778	54,177	56,452	58,143	58,736	58,128	57,135
Psychology	48,167	51,343	53,484	54,557	54,554	53,641	53,209	53,142
Social sciences	77,948	80,742	85,778	88,793	89,134	89,449	88,647	86,028
Engineering, total	107,625	113,576	118,035	116,858	113,023	107,199	103,223	101,008
Research I:								
Total, science and engineering fields	139,029	141,656	146,176	147,642	146,308	143,285	139,670	136,778
Sciences, total	98,415	99,622	102,709	104,369	104,485	103,392	101,437	98,488
Physical sciences	15,201	15,152	15,323	15,380	14,984	14,524	14,028	13,525
Earth, atmospheric, & ocean sciences	4,901	4,902	5,096	5,135	5,183	5,171	4,939	4,658
Mathematical sciences	6,955	7,032	7,229	7,041	6,887	6,672	6,539	6,031
Computer sciences	7,716	7,804	7,980	8,191	7,936	7,808	7,865	7,901
Agricultural sciences	5,203	5,226	5,186	5,225	5,302	5,418	5,272	5,264
Biological sciences	21,932	22,398	23,079	24,089	24,766	24,797	24,430	24,012
Psychology	7,628	7,753	8,061	8,076	7,922	7,817	7,760	7,530
Social sciences	28,879	29,355	30,755	31,232	31,505	31,185	30,604	29,567
Engineering, total	40,614	42,034	43,467	43,273	41,823	39,893	38,233	38,290
Research II:								
Total, science and engineering fields	33,811	36,402	38,430	38,681	37,353	36,171	35,187	34,339
Sciences, total	22,956	24,288	25,746	26,083	25,491	24,971	24,683	23,902
Physical sciences	3,150	3,280	3,407	3,385	3,287	3,168	3,046	2,912
Earth, atmospheric, & ocean sciences	1,346	1,323	1,418	1,459	1,492	1,442	1,363	1,284
Mathematical sciences	1,863	1,986	1,962	1,868	1,783	1,628	1,520	1,357
Computer sciences	2,124	2,290	2,752	2,728	2,595	2,443	2,697	2,281
Agricultural sciences	1,539	1,601	1,775	1,775	1,811	1,848	1,705	1,747
Biological sciences	3,737	3,907	3,956	4,042	4,050	4,097	3,941	4,091
Psychology	2,759	3,050	3,246	3,180	2,995	3,023	2,892	2,801
Social sciences	6,438	6,851	7,230	7,646	7,478	7,322	7,519	7,429
Engineering, total	10,855	12,114	12,684	12,598	11,862	11,200	10,504	10,437
Doctorate-granting:								
Total, science and engineering fields	66,849	68,590	71,623	73,132	73,383	71,028	71,448	71,916
Sciences, total	50,059	50,788	53,582	54,969	55,554	54,634	54,898	55,601
Physical sciences	4,742	4,800	4,923	4,879	4,877	4,689	4,713	4,491
Earth, atmospheric, & ocean sciences	2,103	2,317	2,492	2,502	2,599	2,580	2,521	2,256
Mathematical sciences	3,389	3,464	3,574	3,524	3,480	3,160	3,134	2,991
Computer sciences	10,047	9,474	9,925	10,191	9,871	9,755	9,937	11,120
Agricultural sciences	509	485	576	552	671	678	668	598
Biological sciences	5,001	5,299	5,594	5,793	5,954	6,087	6,194	6,127
Psychology	11,163	11,303	11,765	11,855	12,164	11,764	11,618	12,229
Social sciences	13,105	13,646	14,733	15,673	15,938	15,921	16,113	15,789
Engineering, total	16,790	17,802	18,041	18,163	17,829	16,394	16,550	16,315

See explanatory information, if any, and SOURCE at end of table.

**Table 16. Graduate students in science and engineering fields in all institutions,
by field and Carnegie classification: 1990-97**

Page 2 of 2

Carnegie classification and field	1990	1991	1992	1993	1994	1995	1996	1997
Comprehensive:								
Total, science and engineering fields	53,642	57,076	60,106	61,213	59,803	59,351	58,408	58,409
Sciences, total	43,781	46,388	48,657	50,445	49,734	49,848	49,375	49,674
Physical sciences	2,169	2,329	2,292	2,396	2,318	2,282	2,115	2,032
Earth, atmospheric, & ocean sciences	1,290	1,481	1,718	1,925	1,982	2,032	2,008	2,129
Mathematical sciences	3,079	2,961	2,934	2,969	2,857	2,677	2,624	2,442
Computer sciences	7,129	7,675	8,013	7,578	6,682	6,565	6,919	7,771
Agricultural sciences	934	965	973	1,017	966	1,022	1,006	1,167
Biological sciences	4,588	4,706	5,043	5,629	5,714	6,058	5,830	5,651
Psychology	12,943	14,172	14,890	15,731	15,744	15,497	15,521	15,074
Social sciences	11,649	12,099	12,794	13,200	13,471	13,715	13,352	13,408
Engineering, total	9,861	10,688	11,449	10,768	10,069	9,503	9,033	8,735
Engineering:								
Total, science and engineering fields	1,777	2,026	2,178	2,196	2,230	2,337	2,137	2,201
Sciences, total	527	569	615	633	586	578	540	538
Physical sciences	95	113	118	123	111	106	105	101
Earth, atmospheric, & ocean sciences	184	164	180	194	181	166	160	166
Mathematical sciences	11	17	14	18	11	8	9	4
Computer sciences	226	267	293	292	275	284	250	256
Agricultural sciences	0	0	0	0	0	1	0	0
Biological sciences	11	8	10	6	8	13	16	11
Psychology	0	0	0	0	0	0	0	0
Social sciences	0	0	0	0	0	0	0	0
Engineering, total	1,250	1,457	1,563	1,563	1,644	1,759	1,597	1,663
Liberal arts:								
Total, science and engineering fields	1,847	2,326	2,409	2,305	2,307	2,151	2,038	1,889
Sciences, total	1,690	2,102	2,173	2,097	2,126	1,986	1,893	1,769
Physical sciences	105	117	119	115	110	102	101	109
Earth, atmospheric, & ocean sciences	93	144	162	157	160	143	142	155
Mathematical sciences	32	33	36	36	37	30	30	21
Computer sciences	65	56	55	39	26	23	23	18
Agricultural sciences	67	95	86	71	68	60	47	39
Biological sciences	123	133	133	135	135	128	133	129
Psychology	1,085	1,422	1,442	1,417	1,450	1,382	1,298	1,198
Social sciences	120	102	140	127	140	118	119	100
Engineering, total	157	224	236	208	181	165	145	120
Other:								
Total, science and engineering fields	100,180	104,621	109,722	110,717	109,867	108,232	106,475	102,112
Sciences, total	72,082	75,364	79,127	80,432	80,252	79,947	79,314	76,664
Physical sciences	8,613	8,919	9,166	9,040	8,762	8,546	8,247	7,938
Earth, atmospheric, & ocean sciences	4,067	4,149	4,281	4,433	4,445	4,271	4,147	3,996
Mathematical sciences	4,445	4,459	4,606	4,544	4,524	4,334	4,159	3,913
Computer sciences	6,950	7,044	7,275	7,170	6,743	6,554	6,901	6,663
Agricultural sciences	3,064	3,134	3,231	3,274	3,381	3,340	3,216	2,995
Biological sciences	14,597	15,327	16,362	16,758	17,516	17,556	17,584	17,114
Psychology	12,589	13,643	14,080	14,298	14,279	14,158	14,120	14,310
Social sciences	17,757	18,689	20,126	20,915	20,602	21,188	20,940	19,735
Engineering, total	28,098	29,257	30,595	30,285	29,615	28,285	27,161	25,448

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 17. Full-time graduate students in science, engineering, and health fields in all institutions,
by detailed field: 1990-97**

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	292,830	307,040	322,609	329,679	332,129	329,148	328,453	326,842
Total, science and engineering fields	265,399	277,174	290,510	294,030	293,048	287,253	284,194	280,612
Sciences, total	199,422	206,140	216,084	220,233	221,482	219,479	218,343	215,018
Physical sciences, total	29,485	30,117	30,673	30,611	30,043	28,902	27,956	26,892
Astronomy	790	810	840	848	953	871	854	768
Chemistry	16,382	16,731	16,999	17,204	17,104	16,762	16,506	16,019
Physics	12,191	12,442	12,689	12,397	11,766	11,052	10,400	9,923
Physical sciences, n.e.c.	122	134	145	162	220	217	196	182
Earth, atmos., & ocean sci., total	10,244	10,373	10,986	11,367	11,470	11,275	10,826	10,550
Atmospheric sciences	828	859	959	980	993	959	980	966
Geosciences	5,799	5,688	5,885	5,970	5,946	5,796	5,579	5,432
Oceanography	1,934	1,991	2,133	2,177	2,333	2,228	2,074	1,971
Earth, atmos., & ocean sci., n.e.c.	1,683	1,835	2,009	2,240	2,198	2,292	2,193	2,181
Mathematical sciences	13,865	14,256	14,679	14,530	14,226	13,410	12,966	12,153
Computer sciences	16,689	16,516	17,486	17,374	16,674	16,490	17,173	18,320
Agricultural sciences	9,100	9,289	9,452	9,468	9,492	9,620	9,298	9,110
Biological sciences, total	40,945	42,700	44,389	46,481	48,017	48,330	47,744	46,998
Anatomy	911	961	960	977	983	978	1,042	1,033
Biochemistry	4,825	4,954	5,045	5,174	5,222	5,203	4,971	4,805
Biology	9,149	9,439	9,678	10,028	10,086	9,973	10,043	10,299
Biometry/epidemiology	1,231	1,431	1,634	1,990	2,056	2,093	2,162	2,005
Biophysics	605	679	728	755	770	800	807	728
Botany	2,354	2,304	2,301	2,353	2,349	2,149	2,130	2,051
Cell biology	2,485	2,716	2,961	3,189	3,596	3,694	3,670	3,663
Ecology	884	919	997	1,057	1,203	1,304	1,243	1,200
Entomology/parasitology	997	1,014	1,016	1,039	1,066	1,041	1,027	995
Genetics	1,297	1,412	1,526	1,690	1,602	1,619	1,653	1,666
Microbio., immunology, & virology	4,372	4,408	4,460	4,607	4,705	4,673	4,537	4,416
Nutrition	2,829	2,878	2,863	3,045	3,221	3,431	3,482	3,289
Pathology	1,083	1,113	1,165	1,296	1,389	1,382	1,355	1,420
Pharmacology	2,222	2,304	2,397	2,500	2,672	2,529	2,499	2,446
Physiology	2,076	2,163	2,160	2,220	2,221	2,376	2,217	2,103
Zoology	1,677	1,782	1,789	1,747	1,717	1,746	1,628	1,520
Biosciences, n.e.c.	1,948	2,223	2,709	2,814	3,159	3,339	3,278	3,359
Psychology	30,618	32,258	34,162	34,782	35,288	35,222	35,468	35,522
Social sciences, total	48,476	50,631	54,257	55,620	56,272	56,230	56,912	55,473
Agricultural economics	1,961	2,011	2,105	1,963	1,936	1,977	1,784	1,718
Anthropology (cultural & social)	4,809	5,079	5,337	5,429	5,837	5,792	6,003	5,797
Economics (except agricultural)	9,293	9,850	10,184	10,107	9,945	9,743	9,548	8,792
Geography	2,374	2,539	2,801	3,026	3,119	2,962	2,959	2,967
Linguistics	2,586	2,549	2,477	2,538	2,518	2,486	2,530	2,360
Political science	15,325	16,083	17,667	18,372	17,918	17,630	17,669	17,053
Sociology	5,714	5,949	6,469	6,625	6,720	6,692	6,610	6,727
Sociology/anthropology	744	624	651	639	693	663	620	666
Social sciences, other	5,670	5,947	6,566	6,921	7,586	8,285	9,189	9,393
Engineering, total	65,977	71,034	74,426	73,797	71,566	67,774	65,851	65,594
Aerospace engineering	3,010	3,325	3,306	3,262	3,000	2,693	2,576	2,529
Agricultural engineering	799	823	840	835	879	859	799	748
Biomedical engineering	1,798	1,925	2,167	2,269	2,292	2,315	2,316	2,462
Chemical engineering	5,443	5,788	5,946	6,041	6,105	5,957	5,909	5,784
Civil engineering	10,128	11,328	12,454	12,458	12,641	12,248	11,791	11,259
Electrical engineering	18,675	19,904	20,996	20,370	19,412	18,187	17,989	18,926
Engineering science	1,252	1,364	1,415	1,397	1,347	1,243	1,057	1,018
Industrial/manufacturing eng.	4,770	5,598	6,081	5,902	5,910	5,342	5,128	5,071
Mechanical engineering	10,867	11,687	12,383	12,395	11,875	11,128	10,690	10,432
Metallurgical/materials eng.	3,930	4,058	4,274	4,249	4,108	3,880	3,693	3,661
Nuclear engineering	1,080	1,080	1,084	1,070	997	883	771	708
Engineering, other	4,225	4,154	3,480	3,549	3,000	3,039	3,132	2,996
Total, health fields	27,431	29,866	32,099	35,649	39,081	41,895	44,259	46,230
Clinical fields	1,557	1,811	2,038	2,217	2,374	2,347	2,395	2,732
Dental sciences	827	875	988	1,005	1,048	1,096	1,116	1,235
Nursing	6,148	6,475	6,422	6,875	7,914	8,561	8,653	9,029
Pharmaceutical sciences	2,148	2,198	2,074	2,133	2,188	2,152	2,226	2,238
Preventive medicine/community health	4,510	4,419	4,789	5,334	5,425	5,904	5,782	5,634
Speech pathology/audiology	5,767	6,499	7,144	8,109	8,707	9,064	9,649	9,907
Veterinary sciences	709	717	754	693	696	733	736	985
Other health fields	5,765	6,872	7,890	9,283	10,729	12,038	13,702	14,470

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 18. Male full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1990-97

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	186,724	193,540	200,824	200,790	197,428	191,201	187,133	183,207
Total, science and engineering fields	178,695	185,090	191,791	190,864	186,675	179,834	174,783	170,126
Sciences, total	121,416	123,739	128,029	128,266	126,686	123,556	120,758	117,037
Physical sciences, total	22,664	22,845	23,173	22,888	22,277	21,238	20,413	19,458
Astronomy	629	641	659	658	732	657	630	564
Chemistry	11,420	11,404	11,482	11,465	11,309	11,022	10,837	10,402
Physics	10,546	10,727	10,945	10,658	10,093	9,431	8,839	8,386
Physical sciences, n.e.c.	69	73	87	107	143	128	107	106
Earth, atmos., & ocean sci., total	7,317	7,197	7,588	7,815	7,676	7,387	6,955	6,676
Atmospheric sciences	653	682	760	783	775	742	773	729
Geosciences	4,377	4,154	4,296	4,338	4,174	4,000	3,780	3,627
Oceanography	1,294	1,306	1,357	1,385	1,476	1,360	1,235	1,150
Earth, atmos., & ocean sci., n.e.c.	993	1,055	1,175	1,309	1,251	1,285	1,167	1,170
Mathematical sciences	9,821	10,035	10,250	10,096	9,810	9,213	8,797	8,179
Computer sciences	13,218	13,035	13,936	13,791	13,127	12,840	13,088	13,525
Agricultural sciences	6,454	6,424	6,454	6,281	6,166	6,158	5,847	5,598
Biological sciences, total	22,789	23,498	24,230	24,920	25,493	25,297	24,737	24,031
Anatomy	500	507	509	517	507	513	557	544
Biochemistry	2,852	2,923	2,979	2,979	3,020	2,952	2,826	2,763
Biology	5,195	5,202	5,253	5,421	5,479	5,315	5,317	5,302
Biometry/epidemiology	593	649	727	887	882	872	884	784
Biophysics	452	498	528	533	554	568	567	517
Botany	1,439	1,396	1,397	1,409	1,354	1,202	1,164	1,084
Cell biology	1,394	1,480	1,625	1,714	1,949	2,002	1,969	1,999
Ecology	538	531	557	565	641	705	662	625
Entomology/parasitology	694	720	714	709	710	698	680	636
Genetics	631	711	744	811	748	789	799	774
Microbio., immunology, & virology	2,314	2,339	2,363	2,388	2,443	2,419	2,325	2,241
Nutrition	950	991	949	1,004	986	1,012	1,015	876
Pathology	641	666	656	707	773	751	704	727
Pharmacology	1,249	1,230	1,278	1,327	1,400	1,308	1,282	1,287
Physiology	1,226	1,288	1,295	1,326	1,319	1,394	1,314	1,244
Zoology	1,003	1,070	1,101	1,037	987	1,014	920	855
Biosciences, n.e.c.	1,118	1,297	1,555	1,586	1,741	1,783	1,752	1,773
Psychology	10,642	10,957	11,171	11,189	11,131	10,903	10,794	10,811
Social sciences, total	28,511	29,748	31,227	31,286	31,006	30,520	30,127	28,759
Agricultural economics	1,442	1,477	1,512	1,358	1,302	1,314	1,195	1,135
Anthropology (cultural & social)	2,054	2,123	2,193	2,258	2,384	2,434	2,435	2,367
Economics (except agricultural)	6,843	7,175	7,343	7,253	7,091	6,844	6,640	6,051
Geography	1,585	1,667	1,851	1,966	2,028	1,869	1,878	1,828
Linguistics	1,142	1,151	1,025	1,053	997	981	943	827
Political science	9,259	9,724	10,444	10,595	10,226	9,889	9,755	9,270
Sociology	2,664	2,809	2,912	2,766	2,715	2,719	2,689	2,671
Sociology/anthropology	310	291	287	308	278	269	258	263
Social sciences, other	3,212	3,331	3,660	3,729	3,985	4,201	4,334	4,347
Engineering, total	57,279	61,351	63,762	62,598	59,989	56,278	54,025	53,089
Aerospace engineering	2,811	3,071	3,043	2,971	2,722	2,417	2,293	2,226
Agricultural engineering	717	715	714	709	704	679	619	560
Biomedical engineering	1,338	1,422	1,640	1,685	1,703	1,689	1,678	1,733
Chemical engineering	4,547	4,803	4,849	4,875	4,912	4,734	4,594	4,425
Civil engineering	8,347	9,309	10,126	9,934	9,855	9,431	8,937	8,353
Electrical engineering	16,719	17,739	18,570	17,926	17,021	15,747	15,441	16,096
Engineering science	1,075	1,182	1,230	1,195	1,145	1,061	883	843
Industrial/manufacturing eng.	3,862	4,556	4,906	4,729	4,612	4,191	4,037	3,973
Mechanical engineering	10,019	10,745	11,297	11,210	10,658	9,993	9,500	9,143
Metallurgical/materials eng.	3,238	3,316	3,467	3,447	3,268	3,064	2,878	2,806
Nuclear engineering	952	935	935	926	880	776	649	586
Engineering, other	3,654	3,558	2,985	2,991	2,509	2,496	2,516	2,345
Total, health fields	8,029	8,450	9,033	9,926	10,753	11,367	12,350	13,081
Clinical fields	885	995	1,040	1,110	1,126	1,111	1,156	1,331
Dental sciences	590	623	684	702	723	726	722	765
Nursing	403	468	464	546	609	707	786	899
Pharmaceutical sciences	1,317	1,303	1,213	1,201	1,221	1,192	1,223	1,169
Preventive medicine/community health	1,874	1,778	1,886	2,114	2,153	2,248	2,281	2,218
Speech pathology/audiology	523	506	578	665	690	695	746	785
Veterinary sciences	415	436	439	372	369	378	384	484
Other health fields	2,022	2,341	2,729	3,216	3,862	4,310	5,052	5,430

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 19. Female full-time graduate students in science, engineering, and health fields
in all institutions, by detailed field: 1990-97**

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	106,106	113,500	121,785	128,889	134,701	137,947	141,320	143,635
Total, science and engineering fields	86,704	92,084	98,719	103,166	106,373	107,419	109,411	110,486
Sciences, total	78,006	82,401	88,055	91,967	94,796	95,923	97,585	97,981
Physical sciences, total	6,821	7,272	7,500	7,723	7,766	7,664	7,543	7,434
Astronomy	161	169	181	190	221	214	224	204
Chemistry	4,962	5,327	5,517	5,739	5,795	5,740	5,669	5,617
Physics	1,645	1,715	1,744	1,739	1,673	1,621	1,561	1,537
Physical sciences, n.e.c.	53	61	58	55	77	89	89	76
Earth, atmos., & ocean sci., total	2,927	3,176	3,398	3,552	3,794	3,888	3,871	3,874
Atmospheric sciences	175	177	199	197	218	217	207	237
Geosciences	1,422	1,534	1,589	1,632	1,772	1,796	1,799	1,805
Oceanography	640	685	776	792	857	868	839	821
Earth, atmos., & ocean sci., n.e.c.	690	780	834	931	947	1,007	1,026	1,011
Mathematical sciences	4,044	4,221	4,429	4,434	4,416	4,197	4,169	3,974
Computer sciences	3,471	3,481	3,550	3,583	3,547	3,650	4,085	4,795
Agricultural sciences	2,646	2,865	2,998	3,187	3,326	3,462	3,451	3,512
Biological sciences, total	18,156	19,202	20,159	21,561	22,524	23,033	23,007	22,967
Anatomy	411	454	451	460	476	465	485	489
Biochemistry	1,973	2,031	2,066	2,195	2,202	2,251	2,145	2,042
Biology	3,954	4,237	4,425	4,607	4,607	4,658	4,726	4,997
Biometry/epidemiology	638	782	907	1,103	1,174	1,221	1,278	1,221
Biophysics	153	181	200	222	216	232	240	211
Botany	915	908	904	944	995	947	966	967
Cell biology	1,091	1,236	1,336	1,475	1,647	1,692	1,701	1,664
Ecology	346	388	440	492	562	599	581	575
Entomology/parasitology	303	294	302	330	356	343	347	359
Genetics	666	701	782	879	854	830	854	892
Microbio., immunology, & virology	2,058	2,069	2,097	2,219	2,262	2,254	2,212	2,175
Nutrition	1,879	1,887	1,914	2,041	2,235	2,419	2,467	2,413
Pathology	442	447	509	589	616	631	651	693
Pharmacology	973	1,074	1,119	1,173	1,272	1,221	1,217	1,159
Physiology	850	875	865	894	902	982	903	859
Zoology	674	712	688	710	730	732	708	665
Biosciences, n.e.c.	830	926	1,154	1,228	1,418	1,556	1,526	1,586
Psychology	19,976	21,301	22,991	23,593	24,157	24,319	24,674	24,711
Social sciences, total	19,965	20,883	23,030	24,334	25,266	25,710	26,785	26,714
Agricultural economics	519	534	593	605	634	663	589	583
Anthropology (cultural & social)	2,755	2,956	3,144	3,171	3,453	3,358	3,568	3,430
Economics (except agricultural)	2,450	2,675	2,841	2,854	2,854	2,899	2,908	2,741
Geography	789	872	950	1,060	1,091	1,093	1,081	1,139
Linguistics	1,444	1,398	1,452	1,485	1,521	1,505	1,587	1,533
Political science	6,066	6,359	7,223	7,777	7,692	7,741	7,914	7,783
Sociology	3,050	3,140	3,557	3,859	4,005	3,973	3,921	4,056
Sociology/anthropology	434	333	364	331	415	394	362	403
Social sciences, other	2,458	2,616	2,906	3,192	3,601	4,084	4,855	5,046
Engineering, total	8,698	9,683	10,664	11,199	11,577	11,496	11,826	12,505
Aerospace engineering	199	254	263	291	278	276	283	303
Agricultural engineering	82	108	126	126	175	180	180	188
Biomedical engineering	460	503	527	584	589	626	638	729
Chemical engineering	896	985	1,097	1,166	1,193	1,223	1,315	1,359
Civil engineering	1,781	2,019	2,328	2,524	2,786	2,817	2,854	2,906
Electrical engineering	1,956	2,165	2,426	2,444	2,391	2,440	2,548	2,830
Engineering science	177	182	185	202	202	182	174	175
Industrial/manufacturing eng.	908	1,042	1,175	1,173	1,298	1,151	1,091	1,098
Mechanical engineering	848	942	1,086	1,185	1,217	1,135	1,190	1,289
Metallurgical/materials eng.	692	742	807	802	840	816	815	855
Nuclear engineering	128	145	149	144	117	107	122	122
Engineering, other	571	596	495	558	491	543	616	651
Total, health fields	19,402	21,416	23,066	25,723	28,328	30,528	31,909	33,149
Clinical fields	672	816	998	1,107	1,248	1,236	1,239	1,401
Dental sciences	237	252	304	303	325	370	394	470
Nursing	5,745	6,007	5,958	6,329	7,305	7,854	7,867	8,130
Pharmaceutical sciences	831	895	861	932	967	960	1,003	1,069
Preventive medicine/community health	2,636	2,641	2,903	3,220	3,272	3,656	3,501	3,416
Speech pathology/audiology	5,244	5,993	6,566	7,444	8,017	8,369	8,903	9,122
Veterinary sciences	294	281	315	321	327	355	352	501
Other health fields	3,743	4,531	5,161	6,067	6,867	7,728	8,650	9,040

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 20. Full-time graduate students in science, engineering, and health fields in all institutions,
by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97**

Page 1 of 3

Field, citizenship, and racial/ethnic background	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	292,830	307,040	322,609	329,679	332,129	329,148	328,453	326,842
Total U.S. citizens	201,679	211,592	225,879	236,316	242,299	242,431	241,072	238,281
Black, non-Hispanic	8,112	8,863	10,219	11,387	11,965	12,501	12,989	13,558
American Indian/Alaskan Native	763	857	1,014	1,063	1,138	1,254	1,307	1,361
Asian/Pacific Islander	11,651	12,489	14,709	16,941	19,177	19,072	19,499	20,029
Hispanic	7,571	8,195	9,076	9,798	9,878	11,040	11,349	11,432
White, non-Hispanic	166,607	172,434	181,698	187,128	191,378	187,792	185,596	180,459
Other or unknown	6,975	8,754	9,163	9,999	8,763	10,772	10,332	11,442
Non-U.S. citizens	91,151	95,448	96,730	93,363	89,830	86,717	87,381	88,561
Total, science and engineering	265,399	277,174	290,510	294,030	293,048	287,253	284,194	280,612
Total U.S. citizens	177,804	185,487	197,473	204,484	206,851	204,163	200,783	196,041
Black, non-Hispanic	7,029	7,692	8,904	9,903	10,343	10,668	10,986	11,415
American Indian/Alaskan Native	655	717	847	896	960	1,055	1,087	1,123
Asian/Pacific Islander	10,610	11,267	13,317	15,197	17,170	16,771	16,814	17,068
Hispanic	6,389	6,931	7,595	8,200	8,184	9,082	9,321	9,549
White, non-Hispanic	146,697	150,939	158,434	161,321	162,784	157,498	153,837	147,386
Other or unknown	6,424	7,941	8,376	8,967	7,410	9,089	8,738	9,500
Non-U.S. citizens	87,595	91,687	93,037	89,546	86,197	83,090	83,411	84,571
Sciences, total	199,422	206,140	216,084	220,233	221,482	219,479	218,343	215,018
Total U.S. citizens	143,340	148,396	157,575	163,261	165,684	165,564	164,295	161,197
Black, non-Hispanic	6,079	6,552	7,545	8,413	8,640	8,978	9,323	9,736
American Indian/Alaskan Native	590	610	741	773	826	919	946	983
Asian/Pacific Islander	7,051	7,424	8,820	10,336	11,446	11,631	12,000	12,335
Hispanic	5,315	5,770	6,222	6,682	6,564	7,459	7,663	7,957
White, non-Hispanic	119,909	122,871	128,490	130,976	132,701	129,698	127,657	122,693
Other or unknown	4,396	5,169	5,757	6,081	5,507	6,879	6,706	7,493
Non-U.S. citizens	56,082	57,744	58,509	56,972	55,798	53,915	54,048	53,821
Physical sciences	29,485	30,117	30,673	30,611	30,043	28,902	27,956	26,892
Total U.S. citizens	17,836	18,267	18,759	19,231	19,130	18,410	17,639	16,796
Black, non-Hispanic	488	529	630	690	709	729	769	741
American Indian/Alaskan Native	56	56	63	73	60	66	55	58
Asian/Pacific Islander	1,017	1,219	1,336	1,652	1,600	1,462	1,422	1,345
Hispanic	530	562	572	591	575	586	604	649
White, non-Hispanic	15,377	15,412	15,566	15,681	15,652	14,813	14,177	13,284
Other or unknown	368	489	592	544	534	754	612	719
Non-U.S. citizens	11,649	11,850	11,914	11,380	10,913	10,492	10,317	10,096
Earth, atmospheric, & ocean sciences	10,244	10,373	10,986	11,367	11,470	11,275	10,826	10,550
Total U.S. citizens	7,813	7,802	8,309	8,680	8,608	8,689	8,430	8,328
Black, non-Hispanic	85	97	128	142	129	136	130	138
American Indian/Alaskan Native	25	18	23	29	39	40	42	46
Asian/Pacific Islander	188	200	287	375	328	318	291	288
Hispanic	187	194	222	289	240	259	263	275
White, non-Hispanic	7,141	7,041	7,302	7,516	7,678	7,657	7,447	7,266
Other or unknown	187	252	347	329	194	279	257	315
Non-U.S. citizens	2,431	2,571	2,677	2,687	2,862	2,586	2,396	2,222
Mathematical sciences	13,865	14,256	14,679	14,530	14,226	13,410	12,966	12,153
Total U.S. citizens	7,961	8,380	8,939	9,056	8,876	8,291	7,885	7,277
Black, non-Hispanic	264	276	331	411	412	423	422	387
American Indian/Alaskan Native	13	12	20	13	26	41	31	32
Asian/Pacific Islander	494	555	625	648	802	738	755	696
Hispanic	244	225	231	258	213	234	216	241
White, non-Hispanic	6,532	6,762	7,144	7,048	6,993	6,443	6,138	5,581
Other or unknown	414	550	588	678	430	412	323	340
Non-U.S. citizens	5,904	5,876	5,740	5,474	5,350	5,119	5,081	4,876
Computer sciences	16,689	16,516	17,486	17,374	16,674	16,490	17,173	18,320
Total U.S. citizens	8,742	8,426	8,852	8,985	8,731	8,610	8,374	8,649
Black, non-Hispanic	367	446	411	460	465	485	475	495
American Indian/Alaskan Native	18	18	25	26	11	22	20	22
Asian/Pacific Islander	1,188	1,191	1,387	1,505	1,702	1,652	1,733	1,995
Hispanic	188	194	225	217	215	256	236	243
White, non-Hispanic	6,451	5,936	6,129	6,018	5,924	5,726	5,437	5,228
Other or unknown	530	641	675	759	414	469	473	666
Non-U.S. citizens	7,947	8,090	8,634	8,389	7,943	7,880	8,799	9,671

See explanatory information, if any, and SOURCE at end of table.

Table 20. Full-time graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97

Page 2 of 3

Field, citizenship, and racial/ethnic background	1990	1991	1992	1993	1994	1995	1996	1997
Agricultural sciences	9,100	9,289	9,452	9,468	9,492	9,620	9,298	9,110
Total U.S. citizens	6,215	6,405	6,590	6,661	6,680	6,866	6,725	6,741
Black, non-Hispanic	133	113	163	162	162	227	194	176
American Indian/Alaskan Native	17	27	31	31	27	46	37	47
Asian/Pacific Islander	212	197	174	223	211	215	221	237
Hispanic	240	236	232	256	217	221	277	294
White, non-Hispanic	5,466	5,727	5,811	5,828	5,913	5,932	5,816	5,725
Other or unknown	147	105	179	161	150	225	180	262
Non-U.S. citizens	2,885	2,884	2,862	2,807	2,812	2,754	2,573	2,369
Biological sciences	40,945	42,700	44,389	46,481	48,017	48,330	47,744	46,998
Total U.S. citizens	30,286	31,102	32,558	34,520	36,228	37,196	37,229	36,764
Black, non-Hispanic	931	997	1,119	1,348	1,369	1,450	1,513	1,734
American Indian/Alaskan Native	111	91	115	123	141	160	158	166
Asian/Pacific Islander	1,937	1,985	2,357	2,908	3,420	3,759	3,874	3,824
Hispanic	961	1,100	1,169	1,334	1,344	1,477	1,468	1,613
White, non-Hispanic	25,737	26,275	27,064	27,906	29,036	29,139	29,028	28,042
Other or unknown	609	654	734	901	918	1,211	1,188	1,385
Non-U.S. citizens	10,659	11,598	11,831	11,961	11,789	11,134	10,515	10,234
Psychology	30,618	32,258	34,162	34,782	35,288	35,222	35,468	35,522
Total U.S. citizens	29,133	30,634	32,548	33,196	33,430	33,574	33,845	33,855
Black, non-Hispanic	1,268	1,424	1,656	1,854	2,046	2,028	2,087	2,218
American Indian/Alaskan Native	150	180	210	214	234	255	270	262
Asian/Pacific Islander	728	749	946	1,090	1,160	1,168	1,329	1,421
Hispanic	1,411	1,587	1,648	1,610	1,505	1,944	2,093	2,097
White, non-Hispanic	24,834	25,610	26,849	27,239	27,138	26,664	26,561	26,236
Other or unknown	742	1,084	1,239	1,189	1,347	1,515	1,505	1,621
Non-U.S. citizens	1,485	1,624	1,614	1,586	1,858	1,648	1,623	1,667
Social sciences	48,476	50,631	54,257	55,620	56,272	56,230	56,912	55,473
Total U.S. citizens	35,354	37,380	41,020	42,932	44,001	43,928	44,168	42,787
Black, non-Hispanic	2,543	2,670	3,107	3,346	3,348	3,500	3,733	3,847
American Indian/Alaskan Native	200	208	254	264	288	289	333	350
Asian/Pacific Islander	1,287	1,328	1,708	1,935	2,223	2,319	2,375	2,529
Hispanic	1,554	1,672	1,923	2,127	2,255	2,482	2,506	2,545
White, non-Hispanic	28,371	30,108	32,625	33,740	34,367	33,324	33,053	31,331
Other or unknown	1,399	1,394	1,403	1,520	1,520	2,014	2,168	2,185
Non-U.S. citizens	13,122	13,251	13,237	12,688	12,271	12,302	12,744	12,686
Engineering, total	65,977	71,034	74,426	73,797	71,566	67,774	65,851	65,594
Total U.S. citizens	34,464	37,091	39,898	41,223	41,167	38,599	36,488	34,844
Black, non-Hispanic	950	1,140	1,359	1,490	1,703	1,690	1,663	1,679
American Indian/Alaskan Native	65	107	106	123	134	136	141	140
Asian/Pacific Islander	3,559	3,843	4,497	4,861	5,724	5,140	4,814	4,733
Hispanic	1,074	1,161	1,373	1,518	1,620	1,623	1,658	1,592
White, non-Hispanic	26,788	28,068	29,944	30,345	30,083	27,800	26,180	24,693
Other or unknown	2,028	2,772	2,619	2,886	1,903	2,210	2,032	2,007
Non-U.S. citizens	31,513	33,943	34,528	32,574	30,399	29,175	29,363	30,750
Chemical engineering	5,443	5,788	5,946	6,041	6,105	5,957	5,909	5,784
Total U.S. citizens	2,668	2,798	2,948	3,107	3,370	3,304	3,368	3,263
Black, non-Hispanic	65	95	108	115	133	134	143	128
American Indian/Alaskan Native	1	22	11	12	15	18	21	13
Asian/Pacific Islander	240	311	274	348	395	351	378	405
Hispanic	111	110	131	131	134	164	159	115
White, non-Hispanic	2,195	2,193	2,315	2,395	2,578	2,531	2,527	2,483
Other or unknown	56	67	109	106	115	106	140	119
Non-U.S. citizens	2,775	2,990	2,998	2,934	2,735	2,653	2,541	2,521
Civil engineering	10,128	11,328	12,454	12,458	12,641	12,248	11,791	11,259
Total U.S. citizens	5,375	6,140	7,003	7,440	7,848	7,652	7,509	7,007
Black, non-Hispanic	117	153	188	229	230	261	242	247
American Indian/Alaskan Native	17	20	20	26	23	27	36	41
Asian/Pacific Islander	409	459	558	601	776	760	719	625
Hispanic	182	227	277	337	354	378	452	441
White, non-Hispanic	4,418	5,030	5,663	5,926	6,212	5,892	5,706	5,382
Other or unknown	232	251	297	321	253	334	354	271
Non-U.S. citizens	4,753	5,188	5,451	5,018	4,793	4,596	4,282	4,252

See explanatory information, if any, and SOURCE at end of table.

**Table 20. Full-time graduate students in science, engineering, and health fields in all institutions,
by field, citizenship, and racial/ethnic background of U.S. citizens: 1990-97**

Page 3 of 3

Field, citizenship, and racial/ethnic background	1990	1991	1992	1993	1994	1995	1996	1997
Electrical engineering	18,675	19,904	20,996	20,370	19,412	18,187	17,989	18,926
Total U.S. citizens	9,652	9,976	10,577	10,428	10,467	9,382	8,714	8,521
Black, non-Hispanic	322	371	437	479	538	484	445	481
American Indian/Alaskan Native	18	26	26	27	23	29	27	25
Asian/Pacific Islander	1,513	1,498	1,766	1,690	2,147	1,889	1,830	1,766
Hispanic	294	331	378	419	415	385	374	389
White, non-Hispanic	6,839	6,853	7,116	7,003	6,701	5,893	5,420	5,134
Other or unknown	666	897	854	810	643	702	618	726
Non-U.S. citizens	9,023	9,928	10,419	9,942	8,945	8,805	9,275	10,405
Industrial engineering	4,770	5,598	6,081	5,902	5,910	5,342	5,128	5,071
Total U.S. citizens	2,374	2,760	3,076	3,209	3,180	2,863	2,512	2,394
Black, non-Hispanic	114	153	191	181	197	200	189	191
American Indian/Alaskan Native	7	9	14	14	9	4	8	8
Asian/Pacific Islander	174	232	336	392	359	337	285	304
Hispanic	109	103	122	144	160	146	153	145
White, non-Hispanic	1,802	2,000	2,160	2,161	2,293	1,921	1,733	1,620
Other or unknown	168	263	253	317	162	255	144	126
Non-U.S. citizens	2,396	2,838	3,005	2,693	2,730	2,479	2,616	2,677
Mechanical engineering	10,867	11,687	12,383	12,395	11,875	11,128	10,690	10,432
Total U.S. citizens	5,781	6,120	6,803	7,228	7,090	6,548	6,024	5,591
Black, non-Hispanic	151	149	199	225	283	285	298	315
American Indian/Alaskan Native	6	9	14	19	25	30	23	22
Asian/Pacific Islander	488	578	709	826	969	804	705	631
Hispanic	158	193	207	215	250	257	237	234
White, non-Hispanic	4,439	4,592	5,169	5,289	5,175	4,774	4,438	4,073
Other or unknown	539	599	505	654	388	398	323	316
Non-U.S. citizens	5,086	5,567	5,580	5,167	4,785	4,580	4,666	4,841
Other engineering	16,094	16,729	16,566	16,631	15,623	14,912	14,344	14,122
Total U.S. citizens	8,614	9,297	9,491	9,811	9,212	8,850	8,361	8,068
Black, non-Hispanic	181	219	236	261	322	326	346	317
American Indian/Alaskan Native	16	21	21	25	39	28	26	31
Asian/Pacific Islander	735	765	854	1,004	1,078	999	897	1,002
Hispanic	220	197	258	272	307	293	283	268
White, non-Hispanic	7,095	7,400	7,521	7,571	7,124	6,789	6,356	6,001
Other or unknown	367	695	601	678	342	415	453	449
Non-U.S. citizens	7,480	7,432	7,075	6,820	6,411	6,062	5,983	6,054
Total, health fields	27,431	29,866	32,099	35,649	39,081	41,895	44,259	46,230
Total U.S. citizens	23,875	26,105	28,406	31,832	35,448	38,268	40,289	42,240
Black, non-Hispanic	1,083	1,171	1,315	1,484	1,622	1,833	2,003	2,143
American Indian/Alaskan Native	108	140	167	167	178	199	220	238
Asian/Pacific Islander	1,041	1,222	1,392	1,744	2,007	2,301	2,685	2,961
Hispanic	1,182	1,264	1,481	1,598	1,694	1,958	2,028	1,883
White, non-Hispanic	19,910	21,495	23,264	25,807	28,594	30,294	31,759	33,073
Other or unknown	551	813	787	1,032	1,353	1,683	1,594	1,942
Non-U.S. citizens	3,556	3,761	3,693	3,817	3,633	3,627	3,970	3,990

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 21. Full-time graduate science, engineering, and health students without U.S. citizenship
in all institutions, by detailed field: 1990-97**

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	91,151	95,448	96,730	93,363	89,830	86,717	87,381	88,561
Total, science and engineering fields	87,595	91,687	93,037	89,546	86,197	83,090	83,411	84,571
Sciences, total	56,082	57,744	58,509	56,972	55,798	53,915	54,048	53,821
Physical sciences, total	11,649	11,850	11,914	11,380	10,913	10,492	10,317	10,096
Astronomy	187	212	219	210	259	225	212	184
Chemistry	6,140	6,338	6,264	6,075	5,915	5,790	5,737	5,610
Physics	5,294	5,269	5,395	5,041	4,672	4,419	4,323	4,257
Physical sciences, n.e.c.	28	31	36	54	67	58	45	45
Earth, atmos., & ocean sci., total	2,431	2,571	2,677	2,687	2,862	2,586	2,396	2,222
Atmospheric sciences	264	289	307	272	250	248	268	281
Geosciences	1,361	1,406	1,520	1,520	1,559	1,390	1,300	1,178
Oceanography	532	564	563	557	671	583	510	471
Earth, atmos., & ocean sci., n.e.c.	274	312	287	338	382	365	318	292
Mathematical sciences	5,904	5,876	5,740	5,474	5,350	5,119	5,081	4,876
Computer sciences	7,947	8,090	8,634	8,389	7,943	7,880	8,799	9,671
Agricultural sciences	2,885	2,884	2,862	2,807	2,812	2,754	2,573	2,369
Biological sciences, total	10,659	11,598	11,831	11,961	11,789	11,134	10,515	10,234
Anatomy	202	241	237	239	222	240	217	213
Biochemistry	1,625	1,717	1,721	1,742	1,689	1,582	1,444	1,357
Biology	1,779	1,864	1,891	1,829	1,732	1,687	1,679	1,780
Biometry/epidemiology	342	448	487	542	533	500	468	436
Biophysics	198	246	249	214	208	198	175	170
Botany	832	849	807	817	739	639	627	610
Cell biology	535	619	692	727	848	789	775	762
Ecology	151	150	133	165	161	154	143	133
Entomology/parasitology	298	335	304	321	323	332	285	259
Genetics	293	308	344	367	348	340	373	399
Microbio., immunology, & virology	1,150	1,193	1,141	1,229	1,246	1,129	1,027	952
Nutrition	1,046	1,117	1,076	1,197	1,099	1,116	1,022	956
Pathology	282	315	322	339	335	322	319	281
Pharmacology	570	632	680	612	627	529	556	536
Physiology	581	638	632	597	574	509	420	402
Zoology	292	314	295	261	272	228	211	184
Biosciences, n.e.c.	483	612	820	763	833	840	774	804
Psychology	1,485	1,624	1,614	1,586	1,858	1,648	1,623	1,667
Social sciences, total	13,122	13,251	13,237	12,688	12,271	12,302	12,744	12,686
Agricultural economics	930	954	995	892	832	899	804	821
Anthropology (cultural & social)	697	716	717	675	681	584	592	596
Economics (except agricultural)	4,635	4,779	4,845	4,694	4,579	4,691	4,904	4,762
Geography	432	410	426	432	398	396	398	442
Linguistics	1,068	1,052	952	908	898	874	883	852
Political science	2,753	2,817	2,803	2,764	2,639	2,675	2,956	2,860
Sociology	1,392	1,311	1,299	1,152	1,065	943	936	993
Sociology/anthropology	134	110	98	72	77	77	67	73
Social sciences, other	1,081	1,102	1,102	1,099	1,102	1,163	1,204	1,287
Engineering, total	31,513	33,943	34,528	32,574	30,399	29,175	29,363	30,750
Aerospace engineering	1,140	1,124	1,060	1,084	1,138	1,082	1,159	1,202
Agricultural engineering	469	493	463	432	441	445	406	351
Biomedical engineering	588	662	723	699	730	662	633	652
Chemical engineering	2,775	2,990	2,998	2,934	2,735	2,653	2,541	2,521
Civil engineering	4,753	5,188	5,451	5,018	4,793	4,596	4,282	4,252
Electrical engineering	9,023	9,928	10,419	9,942	8,945	8,805	9,275	10,405
Engineering science	507	590	613	573	514	418	426	398
Industrial/manufacturing eng.	2,396	2,838	3,005	2,693	2,730	2,479	2,616	2,677
Mechanical engineering	5,086	5,567	5,580	5,167	4,785	4,580	4,666	4,841
Metallurgical/materials eng.	1,945	1,991	2,027	1,985	1,773	1,722	1,732	1,767
Nuclear engineering	503	490	473	436	379	347	284	274
Engineering, other	2,328	2,082	1,716	1,611	1,436	1,386	1,343	1,410
Total, health fields	3,556	3,761	3,693	3,817	3,633	3,627	3,970	3,990
Clinical fields	296	331	382	392	369	256	245	235
Dental sciences	184	223	228	236	210	240	281	307
Nursing	199	252	215	245	282	296	263	306
Pharmaceutical sciences	959	984	974	954	871	957	1,052	1,067
Preventive medicine/community health	977	962	841	869	728	724	793	756
Speech pathology/audiology	289	315	327	339	335	271	291	297
Veterinary sciences	201	223	232	223	211	241	266	273
Other health fields	451	471	494	559	627	642	779	749

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 22. Full-time graduate students in science and engineering fields in all institutions,
by field and Carnegie classification: 1990-97**

Page 1 of 2

Carnegie classification and field	1990	1991	1992	1993	1994	1995	1996	1997
All institutions:								
Total, science and engineering fields	265,399	277,174	290,510	294,030	293,048	287,253	284,194	280,612
Sciences, total	199,422	206,140	216,084	220,233	221,482	219,479	218,343	215,018
Physical sciences	29,485	30,117	30,673	30,611	30,043	28,902	27,956	26,892
Earth, atmospheric, & ocean sciences	10,244	10,373	10,986	11,367	11,470	11,275	10,826	10,550
Mathematical sciences	13,865	14,256	14,679	14,530	14,226	13,410	12,966	12,153
Computer sciences	16,689	16,516	17,486	17,374	16,674	16,490	17,173	18,320
Agricultural sciences	9,100	9,289	9,452	9,468	9,492	9,620	9,298	9,110
Biological sciences	40,945	42,700	44,389	46,481	48,017	48,330	47,744	46,998
Psychology	30,618	32,258	34,162	34,782	35,288	35,222	35,468	35,522
Social sciences	48,476	50,631	54,257	55,620	56,272	56,230	56,912	55,473
Engineering, total	65,977	71,034	74,426	73,797	71,566	67,774	65,851	65,594
Research I:								
Total, science and engineering fields	115,111	117,875	121,824	123,931	123,434	120,156	117,635	115,242
Sciences, total	84,493	85,808	88,634	90,468	90,726	89,206	87,569	84,893
Physical sciences	14,489	14,621	14,740	14,789	14,386	13,917	13,513	12,960
Earth, atmospheric, & ocean sciences	4,278	4,231	4,412	4,500	4,546	4,495	4,202	4,003
Mathematical sciences	6,083	6,137	6,348	6,236	6,024	5,778	5,624	5,252
Computer sciences	5,842	5,870	6,002	6,049	5,986	5,856	5,941	5,919
Agricultural sciences	4,366	4,367	4,334	4,323	4,396	4,448	4,291	4,212
Biological sciences	20,147	20,705	21,314	22,317	23,028	22,996	22,581	22,067
Psychology	6,237	6,340	6,685	6,763	6,677	6,612	6,543	6,294
Social sciences	23,051	23,537	24,799	25,491	25,683	25,104	24,874	24,186
Engineering, total	30,618	32,067	33,190	33,463	32,708	30,950	30,066	30,349
Research II:								
Total, science and engineering fields	22,575	24,299	25,422	25,528	25,193	25,009	24,488	24,036
Sciences, total	16,747	17,534	18,270	18,566	18,564	18,593	18,358	17,862
Physical sciences	2,808	2,877	2,965	2,939	2,902	2,824	2,659	2,553
Earth, atmospheric, & ocean sciences	981	946	1,077	1,091	1,145	1,168	1,058	1,032
Mathematical sciences	1,381	1,473	1,400	1,420	1,360	1,283	1,202	1,074
Computer sciences	1,189	1,198	1,422	1,390	1,444	1,360	1,442	1,319
Agricultural sciences	1,244	1,268	1,421	1,409	1,354	1,402	1,315	1,350
Biological sciences	3,097	3,209	3,161	3,282	3,348	3,442	3,339	3,416
Psychology	2,018	2,190	2,251	2,213	2,218	2,276	2,169	2,060
Social sciences	4,029	4,373	4,573	4,822	4,793	4,838	5,174	5,058
Engineering, total	5,828	6,765	7,152	6,962	6,629	6,416	6,130	6,174
Doctorate-granting:								
Total, science and engineering fields	33,930	35,892	37,689	37,920	38,809	37,108	37,895	38,644
Sciences, total	26,960	27,971	29,552	29,979	31,036	30,004	30,683	31,426
Physical sciences	3,481	3,590	3,713	3,649	3,677	3,346	3,341	3,250
Earth, atmospheric, & ocean sciences	1,167	1,295	1,310	1,371	1,442	1,376	1,374	1,288
Mathematical sciences	1,816	1,959	2,049	2,091	2,100	1,890	1,818	1,766
Computer sciences	3,625	3,342	3,579	3,517	3,480	3,466	3,669	4,313
Agricultural sciences	372	355	436	399	432	403	446	420
Biological sciences	3,371	3,657	3,857	4,023	4,249	4,301	4,221	4,184
Psychology	6,888	6,872	7,124	7,508	7,861	7,501	7,743	8,180
Social sciences	6,240	6,901	7,484	7,421	7,795	7,721	8,071	8,025
Engineering, total	6,970	7,921	8,137	7,941	7,773	7,104	7,212	7,218

See explanatory information, if any, and SOURCE at end of table.

**Table 22. Full-time graduate students in science and engineering fields in all institutions,
by field and Carnegie classification: 1990-97**

Page 2 of 2

Carnegie classification and field	1990	1991	1992	1993	1994	1995	1996	1997
Comprehensive:								
Total, science and engineering fields	19,380	21,390	23,134	23,611	23,564	23,533	23,775	24,493
Sciences, total	16,474	17,995	19,273	19,918	20,040	20,226	20,645	21,355
Physical sciences	1,006	1,050	1,020	1,122	1,124	1,113	1,065	1,004
Earth, atmospheric, & ocean sciences	580	654	719	799	827	808	819	920
Mathematical sciences	866	925	965	975	1,004	881	876	817
Computer sciences	2,219	2,361	2,452	2,302	2,020	1,946	2,304	2,787
Agricultural sciences	573	655	556	631	588	706	643	730
Biological sciences	2,104	2,185	2,354	2,744	2,671	2,781	2,818	2,872
Psychology	5,658	6,358	7,114	7,221	7,560	7,587	7,678	7,531
Social sciences	3,468	3,807	4,093	4,124	4,246	4,404	4,442	4,694
Engineering, total	2,906	3,395	3,861	3,693	3,524	3,307	3,130	3,138
Engineering:								
Total, science and engineering fields	777	843	904	936	895	844	818	865
Sciences, total	377	374	387	405	367	350	370	352
Physical sciences	92	101	97	102	87	82	91	86
Earth, atmospheric, & ocean sciences	173	158	161	177	164	153	160	166
Mathematical sciences	11	17	13	18	11	8	9	4
Computer sciences	90	90	107	102	97	94	95	86
Agricultural sciences	0	0	0	0	0	0	0	0
Biological sciences	11	8	9	6	8	13	15	10
Psychology	0	0	0	0	0	0	0	0
Social sciences	0	0	0	0	0	0	0	0
Engineering, total	400	469	517	531	528	494	448	513
Liberal arts:								
Total, science and engineering fields	1,214	1,545	1,658	1,513	1,585	1,449	1,419	1,287
Sciences, total	1,164	1,444	1,539	1,441	1,507	1,362	1,340	1,219
Physical sciences	80	88	94	94	100	85	85	94
Earth, atmospheric, & ocean sciences	77	119	139	133	118	107	108	123
Mathematical sciences	24	26	32	32	34	25	26	16
Computer sciences	12	10	9	5	6	2	5	2
Agricultural sciences	59	75	70	56	52	40	38	30
Biological sciences	108	115	114	118	123	115	112	114
Psychology	735	979	1,023	953	989	928	907	801
Social sciences	69	32	58	50	85	60	59	39
Engineering, total	50	101	119	72	78	87	79	68
Other:								
Total, science and engineering fields	72,412	75,330	79,879	80,591	79,568	79,154	78,164	76,045
Sciences, total	53,207	55,014	58,429	59,456	59,242	59,738	59,378	57,911
Physical sciences	7,529	7,790	8,044	7,916	7,767	7,535	7,202	6,945
Earth, atmospheric, & ocean sciences	2,988	2,970	3,168	3,296	3,228	3,168	3,105	3,018
Mathematical sciences	3,684	3,719	3,872	3,758	3,693	3,545	3,411	3,224
Computer sciences	3,712	3,645	3,915	4,009	3,641	3,766	3,717	3,894
Agricultural sciences	2,486	2,569	2,635	2,650	2,670	2,621	2,565	2,368
Biological sciences	12,107	12,821	13,580	13,991	14,590	14,682	14,658	14,335
Psychology	9,082	9,519	9,965	10,124	9,983	10,318	10,428	10,656
Social sciences	11,619	11,981	13,250	13,712	13,670	14,103	14,292	13,471
Engineering, total	19,205	20,316	21,450	21,135	20,326	19,416	18,786	18,134

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 23. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and source of support: 1990-97**

Page 1 of 5

Field and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields:								
Total, all sources	292,830	307,040	322,609	329,679	332,129	329,148	328,453	326,842
Federal, total	59,272	63,014	65,626	67,688	68,566	67,310	65,252	64,340
Dept. of Defense	8,868	9,128	9,247	9,750	9,449	9,339	8,802	9,034
Dept. of HHS, total	19,522	20,493	21,428	22,038	22,680	22,787	22,371	22,384
NIH	14,996	16,018	17,093	18,137	18,295	18,111	17,932	18,016
Other HHS	4,526	4,475	4,335	3,901	4,385	4,676	4,439	4,368
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	2,309	2,586
NSF	12,025	12,666	13,366	13,530	13,990	13,661	13,412	13,326
USDA	2,722	3,075	3,216	3,324	3,422	3,254	3,004	2,644
All other Federal	16,135	17,652	18,369	19,046	19,025	18,269	15,354	14,366
Institutional support	123,035	125,387	127,923	129,019	129,295	129,397	128,457	128,937
Other outside support, total	26,135	27,070	27,769	26,714	27,255	25,952	25,404	25,185
All other U.S.	19,604	20,427	21,309	21,233	21,537	20,405	20,154	20,354
Foreign	6,531	6,643	6,460	5,481	5,718	5,547	5,250	4,831
Self-support	84,388	91,569	101,291	106,258	107,013	106,489	109,340	108,380
Total, science and engineering:								
Total, all sources	265,399	277,174	290,510	294,030	293,048	287,253	284,194	280,612
Federal, total	52,501	56,046	58,298	60,393	60,789	59,408	57,857	56,689
Dept. of Defense	8,492	8,711	8,848	9,315	9,067	9,006	8,471	8,714
Dept. of HHS, total	14,594	15,472	16,274	16,827	17,148	17,110	16,914	16,736
NIH	13,367	14,172	15,043	15,871	15,950	15,672	15,485	15,286
Other HHS	1,227	1,300	1,231	956	1,198	1,438	1,429	1,450
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	2,295	2,565
NSF	11,976	12,610	13,296	13,441	13,873	13,561	13,330	13,228
USDA	2,664	3,015	3,147	3,246	3,348	3,199	2,954	2,602
All other Federal	14,775	16,238	16,733	17,564	17,353	16,532	13,893	12,844
Institutional support	115,864	117,907	120,276	120,899	120,834	120,417	119,086	119,277
Other outside support, total	24,765	25,549	26,075	24,971	25,390	23,926	23,379	23,192
All other U.S.	18,699	19,367	20,075	19,933	20,130	18,909	18,559	18,848
Foreign	6,066	6,182	6,000	5,038	5,260	5,017	4,820	4,344
Self-support	72,269	77,672	85,861	87,767	86,035	83,502	83,872	81,454
Sciences, total:								
Total, all sources	199,422	206,140	216,084	220,233	221,482	219,479	218,343	215,018
Federal, total	37,829	40,064	41,734	43,503	43,938	43,047	42,024	40,851
Dept. of Defense	3,779	3,840	3,895	4,176	4,350	4,196	3,933	3,922
Dept. of HHS, total	13,834	14,662	15,373	15,903	16,242	16,192	16,079	15,828
NIH	12,706	13,448	14,245	15,077	15,168	14,904	14,754	14,525
Other HHS	1,128	1,214	1,128	826	1,074	1,288	1,325	1,303
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	1,202	1,304
NSF	8,094	8,313	8,691	8,880	9,109	8,981	8,737	8,646
USDA	2,433	2,741	2,789	2,940	3,003	2,858	2,663	2,388
All other Federal	9,689	10,508	10,986	11,604	11,234	10,820	9,410	8,763
Institutional support	92,553	93,291	95,350	95,940	96,269	96,585	95,694	95,484
Other outside support, total	14,384	14,923	15,525	15,254	16,012	14,819	14,505	14,174
All other U.S.	10,324	10,831	11,556	11,860	12,364	11,457	11,222	11,253
Foreign	4,060	4,092	3,969	3,394	3,648	3,362	3,283	2,921
Self-support	54,656	57,862	63,475	65,536	65,263	65,028	66,120	64,509
Physical sciences:								
Total, all sources	29,485	30,117	30,673	30,611	30,043	28,902	27,956	26,892
Federal, total	10,284	10,834	11,007	11,140	11,032	10,359	9,887	9,444
Dept. of Defense	1,214	1,226	1,194	1,187	1,316	1,198	1,073	1,037
Dept. of HHS, total	2,096	2,042	2,188	2,162	2,209	2,078	2,078	1,953
NIH	1,952	1,874	2,056	2,051	2,074	1,898	1,795	1,637
Other HHS	144	168	132	111	135	180	283	316
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	538	586
NSF	3,567	3,571	3,601	3,623	3,703	3,605	3,385	3,366
USDA	54	61	68	61	42	38	43	31
All other Federal	3,353	3,934	3,956	4,107	3,762	3,440	2,770	2,471
Institutional support	15,272	15,049	15,358	15,148	14,831	14,848	14,349	14,144
Other outside support, total	1,974	2,228	2,349	2,234	2,316	2,081	2,096	1,876
All other U.S.	1,716	1,927	2,044	1,955	2,008	1,794	1,802	1,658
Foreign	258	301	305	279	308	287	294	218
Self-support	1,955	2,006	1,959	2,089	1,864	1,614	1,624	1,428

See explanatory information, if any, and SOURCE at end of table.

**Table 23. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and source of support: 1990-97**

Page 2 of 5

Field and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Earth, atmospheric, & ocean sciences:								
Total, all sources	10,244	10,373	10,986	11,367	11,470	11,275	10,826	10,550
Federal, total	2,991	3,119	3,436	3,652	3,630	3,472	3,273	3,119
Dept. of Defense	452	452	472	517	494	410	393	366
Dept. of HHS, total	34	56	49	48	37	33	49	40
NIH	21	23	43	41	36	30	30	27
Other HHS	13	33	6	7	1	3	19	13
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	331	355
NSF	1,210	1,223	1,320	1,366	1,409	1,387	1,242	1,201
USDA	57	69	86	64	61	65	75	52
All other Federal	1,238	1,319	1,509	1,657	1,629	1,577	1,183	1,105
Institutional support	4,257	4,314	4,316	4,366	4,343	4,441	4,273	4,387
Other outside support, total	952	974	1,006	928	1,023	968	918	885
All other U.S.	679	687	761	735	790	733	701	701
Foreign	273	287	245	193	233	235	217	184
Self-support	2,044	1,966	2,228	2,421	2,474	2,394	2,362	2,159
Mathematical sciences:								
Total, all sources	13,865	14,256	14,679	14,530	14,226	13,410	12,966	12,153
Federal, total	1,333	1,503	1,497	1,474	1,397	1,287	1,237	1,170
Dept. of Defense	367	376	386	399	372	322	351	361
Dept. of HHS, total	49	69	118	80	76	87	82	96
NIH	39	64	111	74	68	63	61	66
Other HHS	10	5	7	6	8	24	21	30
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	21	19
NSF	491	452	457	470	518	474	435	391
USDA	23	21	25	28	16	13	9	16
All other Federal	403	585	511	497	415	391	339	287
Institutional support	9,489	9,531	9,578	9,394	9,461	9,151	8,836	8,466
Other outside support, total	560	590	626	524	552	496	554	487
All other U.S.	317	321	356	303	333	309	347	310
Foreign	243	269	270	221	219	187	207	177
Self-support	2,483	2,632	2,978	3,138	2,816	2,476	2,339	2,030
Computer sciences:								
Total, all sources	16,689	16,516	17,486	17,374	16,674	16,490	17,173	18,320
Federal, total	2,409	2,533	2,661	2,918	3,070	3,175	3,105	3,170
Dept. of Defense	1,129	1,131	1,210	1,327	1,345	1,419	1,349	1,431
Dept. of HHS, total	71	71	104	107	103	111	113	106
NIH	62	65	101	99	95	93	80	78
Other HHS	9	6	3	8	8	18	33	28
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	121	122
NSF	819	896	962	1,004	1,046	1,053	1,049	1,087
USDA	14	8	6	7	9	13	13	12
All other Federal	376	427	379	473	567	579	460	412
Institutional support	5,653	5,474	5,609	5,509	5,437	5,488	5,641	5,904
Other outside support, total	1,281	1,322	1,350	1,383	1,393	1,300	1,166	1,183
All other U.S.	935	972	1,029	1,131	1,107	1,063	919	1,025
Foreign	346	350	321	252	286	237	247	158
Self-support	7,346	7,187	7,866	7,564	6,774	6,527	7,261	8,063
Agricultural sciences:								
Total, all sources	9,100	9,289	9,452	9,468	9,492	9,620	9,298	9,110
Federal, total	1,812	1,896	1,993	1,965	1,922	2,061	1,973	1,783
Dept. of Defense	18	26	18	37	35	32	38	39
Dept. of HHS, total	45	46	41	34	50	25	31	30
NIH	40	38	38	32	47	19	17	21
Other HHS	5	8	3	2	3	6	14	9
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	28	28
NSF	65	61	76	76	87	92	97	102
USDA	963	1,117	1,110	1,150	1,114	1,195	1,069	956
All other Federal	721	646	748	668	636	717	710	628
Institutional support	3,450	3,535	3,621	3,635	3,810	3,884	3,681	3,671
Other outside support, total	1,770	1,715	1,685	1,681	1,671	1,484	1,443	1,566
All other U.S.	1,101	1,059	1,099	1,189	1,153	1,081	1,088	1,227
Foreign	669	656	586	492	518	403	355	339
Self-support	2,068	2,143	2,153	2,187	2,089	2,191	2,201	2,090

See explanatory information, if any, and SOURCE at end of table.

Table 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and source of support: 1990-97

Page 3 of 5

Field and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Biological sciences:								
Total, all sources	40,945	42,700	44,389	46,481	48,017	48,330	47,744	46,998
Federal, total	13,652	14,503	15,148	16,210	16,724	16,627	16,549	16,274
Dept. of Defense	222	223	232	273	346	359	365	372
Dept. of HHS, total	9,951	10,667	11,054	11,632	11,979	12,058	11,876	11,805
NIH	9,584	10,215	10,637	11,314	11,464	11,386	11,287	11,223
Other HHS	367	452	417	318	515	672	589	582
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	90	109
NSF	1,212	1,282	1,347	1,382	1,382	1,407	1,494	1,535
USDA	963	1,062	1,083	1,222	1,289	1,090	1,071	925
All other Federal	1,304	1,269	1,432	1,701	1,728	1,713	1,653	1,528
Institutional support	18,868	19,267	19,753	20,028	20,712	20,832	20,417	20,322
Other outside support, total	3,536	3,735	3,787	3,864	4,138	3,893	3,741	3,607
All other U.S.	2,809	3,017	3,109	3,280	3,504	3,286	3,184	3,088
Foreign	727	718	678	584	634	607	557	519
Self-support	4,889	5,195	5,701	6,379	6,443	6,978	7,037	6,795
Psychology:								
Total, all sources	30,618	32,258	34,162	34,782	35,288	35,222	35,468	35,522
Federal, total	2,394	2,492	2,582	2,653	2,634	2,543	2,753	2,701
Dept. of Defense	156	159	136	163	175	175	139	113
Dept. of HHS, total	1,274	1,342	1,398	1,423	1,365	1,326	1,523	1,447
NIH	798	901	962	1,163	1,098	1,094	1,218	1,189
Other HHS	476	441	436	260	267	232	305	258
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	21	20
NSF	262	268	283	314	289	288	289	277
USDA	37	24	19	15	38	16	5	7
All other Federal	665	699	746	738	767	738	776	837
Institutional support	12,133	12,279	12,676	13,215	12,966	12,841	13,053	13,511
Other outside support, total	1,118	1,071	1,108	1,079	1,190	1,133	1,044	1,219
All other U.S.	1,060	1,015	1,051	1,032	1,116	1,089	1,003	1,162
Foreign	58	56	57	47	74	44	41	57
Self-support	14,973	16,416	17,796	17,835	18,498	18,705	18,618	18,091
Social sciences:								
Total, all sources	48,476	50,631	54,257	55,620	56,272	56,230	56,912	55,473
Federal, total	2,954	3,184	3,410	3,491	3,529	3,523	3,247	3,190
Dept. of Defense	221	247	247	273	267	281	225	203
Dept. of HHS, total	314	369	421	417	423	474	327	351
NIH	210	268	297	303	286	321	266	284
Other HHS	104	101	124	114	137	153	61	67
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	52	65
NSF	468	560	645	645	675	675	746	687
USDA	322	379	392	393	434	428	378	389
All other Federal	1,629	1,629	1,705	1,763	1,730	1,665	1,519	1,495
Institutional support	23,431	23,842	24,439	24,645	24,709	25,100	25,444	25,079
Other outside support, total	3,193	3,288	3,614	3,561	3,729	3,464	3,543	3,351
All other U.S.	1,707	1,833	2,107	2,235	2,353	2,102	2,178	2,082
Foreign	1,486	1,455	1,507	1,326	1,376	1,362	1,365	1,269
Self-support	18,898	20,317	22,794	23,923	24,305	24,143	24,678	23,853
Engineering, total:								
Total, all sources	65,977	71,034	74,426	73,797	71,566	67,774	65,851	65,594
Federal, total	14,672	15,982	16,564	16,890	16,851	16,361	15,833	15,838
Dept. of Defense	4,713	4,871	4,953	5,139	4,717	4,810	4,538	4,792
Dept. of HHS, total	760	810	901	924	906	918	835	908
NIH	661	724	798	794	782	768	731	761
Other HHS	99	86	103	130	124	150	104	147
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	1,093	1,261
NSF	3,882	4,297	4,605	4,561	4,764	4,580	4,593	4,582
USDA	231	274	358	306	345	341	291	214
All other Federal	5,086	5,730	5,747	5,960	6,119	5,712	4,483	4,081
Institutional support	23,311	24,616	24,926	24,959	24,565	23,832	23,392	23,793
Other outside support, total	10,381	10,626	10,550	9,717	9,378	9,107	8,874	9,018
All other U.S.	8,375	8,536	8,519	8,073	7,766	7,452	7,337	7,595
Foreign	2,006	2,090	2,031	1,644	1,612	1,655	1,537	1,423
Self-support	17,613	19,810	22,386	22,231	20,772	18,474	17,752	16,945

See explanatory information, if any, and SOURCE at end of table.

**Table 23. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and source of support: 1990-97**

Page 4 of 5

Field and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Chemical engineering:								
Total, all sources	5,443	5,788	5,946	6,041	6,105	5,957	5,909	5,784
Federal, total	1,529	1,598	1,654	1,748	1,716	1,752	1,786	1,644
Dept. of Defense	98	134	123	139	128	164	169	167
Dept. of HHS, total	121	132	166	141	173	163	162	137
NIH	119	128	146	119	143	136	148	121
Other HHS	2	4	20	22	30	27	14	16
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	91	80
NSF	679	664	699	730	749	759	777	707
USDA	27	16	38	52	54	66	34	25
All other Federal	604	652	628	686	612	600	553	528
Institutional support	2,105	2,282	2,308	2,340	2,420	2,278	2,154	2,233
Other outside support, total	1,241	1,228	1,170	1,059	1,145	1,080	1,113	1,128
All other U.S.	1,142	1,111	1,072	960	1,041	942	957	948
Foreign	99	117	98	99	104	138	156	180
Self-support	568	680	814	894	824	847	856	779
Civil engineering:								
Total, all sources	10,128	11,328	12,454	12,458	12,641	12,248	11,791	11,259
Federal, total	1,467	1,752	2,028	1,982	2,090	1,970	1,886	1,795
Dept. of Defense	235	273	349	328	321	290	215	232
Dept. of HHS, total	15	35	43	38	45	41	39	47
NIH	11	31	38	30	37	31	33	41
Other HHS	4	4	5	8	8	10	6	6
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	117	121
NSF	428	498	532	522	587	530	534	521
USDA	36	51	80	63	65	53	70	40
All other Federal	753	895	1,024	1,031	1,072	1,056	911	834
Institutional support	3,913	4,204	4,391	4,579	4,742	4,874	4,754	4,699
Other outside support, total	1,256	1,339	1,477	1,267	1,233	1,163	1,154	1,082
All other U.S.	826	918	1,031	972	942	875	911	862
Foreign	430	421	446	295	291	288	243	220
Self-support	3,492	4,033	4,558	4,630	4,576	4,241	3,997	3,683
Electrical engineering:								
Total, all sources	18,675	19,904	20,996	20,370	19,412	18,187	17,989	18,926
Federal, total	3,571	3,866	4,061	4,106	4,082	4,057	3,985	4,395
Dept. of Defense	1,646	1,644	1,700	1,764	1,664	1,706	1,651	1,968
Dept. of HHS, total	77	85	90	103	100	113	93	113
NIH	55	76	81	86	83	84	71	68
Other HHS	22	9	9	17	17	29	22	45
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	173	229
NSF	1,133	1,278	1,388	1,285	1,343	1,325	1,319	1,329
USDA	16	18	24	11	24	34	13	15
All other Federal	699	841	859	943	951	879	736	741
Institutional support	6,355	6,640	6,856	6,726	6,407	6,245	6,391	6,733
Other outside support, total	2,969	3,024	2,953	2,773	2,620	2,591	2,648	2,788
All other U.S.	2,443	2,492	2,450	2,336	2,218	2,162	2,263	2,451
Foreign	526	532	503	437	402	429	385	337
Self-support	5,780	6,374	7,126	6,765	6,303	5,294	4,965	5,010
Industrial engineering:								
Total, all sources	4,770	5,598	6,081	5,902	5,910	5,342	5,128	5,071
Federal, total	611	705	650	647	637	657	644	603
Dept. of Defense	299	281	267	249	178	189	209	193
Dept. of HHS, total	60	52	53	78	50	54	49	36
NIH	27	16	22	36	28	27	27	30
Other HHS	33	36	31	42	22	27	22	6
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	27	23
NSF	129	188	165	173	215	173	171	145
USDA	1	5	5	3	1	0	1	1
All other Federal	122	179	160	144	193	241	187	205
Institutional support	1,686	1,858	1,878	1,949	1,889	1,840	1,782	1,697
Other outside support, total	571	496	568	493	551	498	461	501
All other U.S.	415	362	430	404	458	420	355	404
Foreign	156	134	138	89	93	78	106	97
Self-support	1,902	2,539	2,985	2,813	2,833	2,347	2,241	2,270

See explanatory information, if any, and SOURCE at end of table.

**Table 23. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and source of support: 1990-97**

Page 5 of 5

Field and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Mechanical engineering:								
Total, all sources	10,867	11,687	12,383	12,395	11,875	11,128	10,690	10,432
Federal, total	2,532	2,730	2,790	2,999	2,946	2,777	2,602	2,612
Dept. of Defense	751	738	730	797	782	823	739	757
Dept. of HHS, total	69	71	87	86	80	93	76	109
NIH	68	58	77	70	71	82	63	70
Other HHS	1	13	10	16	9	11	13	39
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	210	291
NSF	639	732	786	812	800	743	770	836
USDA	26	29	26	9	10	4	13	12
All other Federal	1,047	1,160	1,161	1,295	1,274	1,114	794	607
Institutional support	4,043	4,287	4,400	4,231	4,086	3,909	3,954	3,933
Other outside support, total	1,599	1,686	1,618	1,561	1,573	1,601	1,459	1,457
All other U.S.	1,383	1,415	1,401	1,391	1,333	1,347	1,250	1,283
Foreign	216	271	217	170	240	254	209	174
Self-support	2,693	2,984	3,575	3,604	3,270	2,841	2,675	2,430
Other engineering:								
Total, all sources	16,094	16,729	16,566	16,631	15,623	14,912	14,344	14,122
Federal, total	4,962	5,331	5,381	5,408	5,380	5,148	4,930	4,789
Dept. of Defense	1,684	1,801	1,784	1,862	1,644	1,638	1,555	1,475
Dept. of HHS, total	418	435	462	478	458	454	416	466
NIH	381	415	434	453	420	408	389	431
Other HHS	37	20	28	25	38	46	27	35
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	475	517
NSF	874	937	1,035	1,039	1,070	1,050	1,022	1,044
USDA	125	155	185	168	191	184	160	121
All other Federal	1,861	2,003	1,915	1,861	2,017	1,822	1,302	1,166
Institutional support	5,209	5,345	5,093	5,134	5,021	4,686	4,357	4,498
Other outside support, total	2,745	2,853	2,764	2,564	2,256	2,174	2,039	2,062
All other U.S.	2,166	2,238	2,135	2,010	1,774	1,706	1,601	1,647
Foreign	579	615	629	554	482	468	438	415
Self-support	3,178	3,200	3,328	3,525	2,966	2,904	3,018	2,773
Total, health fields:								
Total, all sources	27,431	29,866	32,099	35,649	39,081	41,895	44,259	46,230
Federal, total	6,771	6,968	7,328	7,295	7,777	7,902	7,395	7,651
Dept. of Defense	376	417	399	435	382	333	331	320
Dept. of HHS, total	4,928	5,021	5,154	5,211	5,532	5,677	5,457	5,648
NIH	1,629	1,846	2,050	2,266	2,345	2,439	2,447	2,730
Other HHS	3,299	3,175	3,104	2,945	3,187	3,238	3,010	2,918
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	14	21
NSF	49	56	70	89	117	100	82	98
USDA	58	60	69	78	74	55	50	42
All other Federal	1,360	1,414	1,636	1,482	1,672	1,737	1,461	1,522
Institutional support	7,171	7,480	7,647	8,120	8,461	8,980	9,371	9,660
Other outside support, total	1,370	1,521	1,694	1,743	1,865	2,026	2,025	1,993
All other U.S.	905	1,060	1,234	1,300	1,407	1,496	1,595	1,506
Foreign	465	461	460	443	458	530	430	487
Self-support	12,119	13,897	15,430	18,491	20,978	22,987	25,468	26,926

¹ Data for NASA were not collected separately prior to 1996.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 24. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and mechanism of support: 1990-97**

Page 1 of 2

Field and mechanism support	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields:								
Total, all types	292,830	307,040	322,609	329,679	332,129	329,148	328,453	326,842
Fellowships	25,254	26,695	28,630	29,132	28,894	28,891	28,863	28,890
Traineeships	15,212	15,417	15,375	15,458	15,692	15,953	15,488	14,479
Research assistantships	80,746	85,175	88,030	90,156	92,011	89,950	87,695	88,045
Teaching assistantships	64,965	65,229	65,725	67,315	66,869	65,997	65,789	65,199
Other types of support	106,653	114,524	124,849	127,618	128,663	128,357	130,618	130,229
Total, science and engineering:								
Total, all types	265,399	277,174	290,510	294,030	293,048	287,253	284,194	280,612
Fellowships	23,522	24,983	26,750	27,142	26,774	26,708	26,389	26,456
Traineeships	10,064	10,466	10,051	10,296	10,344	10,543	10,338	9,667
Research assistantships	77,342	81,214	84,076	86,202	87,633	85,347	83,318	83,207
Teaching assistantships	62,597	62,746	63,221	64,792	64,068	63,164	62,768	62,052
Other types of support	91,874	97,765	106,412	105,598	104,229	101,491	101,381	99,230
Sciences, total:								
Total, all types	199,422	206,140	216,084	220,233	221,482	219,479	218,343	215,018
Fellowships	18,317	19,214	20,626	20,905	20,718	20,695	20,720	20,700
Traineeships	9,047	9,351	9,042	9,234	9,411	9,534	9,472	8,803
Research assistantships	52,043	54,438	56,536	58,271	59,551	58,303	56,805	56,333
Teaching assistantships	51,601	51,482	52,274	53,624	53,301	53,004	52,759	51,900
Other types of support	68,414	71,655	77,606	78,199	78,501	77,943	78,587	77,282
Physical sciences:								
Total, all types	29,485	30,117	30,673	30,611	30,043	28,902	27,956	26,892
Fellowships	2,254	2,660	2,837	2,729	2,430	2,351	2,203	2,197
Traineeships	666	793	707	757	681	677	650	531
Research assistantships	12,138	12,229	12,445	12,293	12,378	11,848	11,527	11,321
Teaching assistantships	11,835	11,696	11,848	12,129	11,893	11,696	11,247	10,819
Other types of support	2,592	2,739	2,836	2,703	2,661	2,330	2,329	2,024
Earth, atmospheric, & ocean sciences:								
Total, all types	10,244	10,373	10,986	11,367	11,470	11,275	10,826	10,550
Fellowships	797	896	894	907	865	896	870	820
Traineeships	84	93	120	153	140	131	131	92
Research assistantships	4,189	4,387	4,615	4,729	4,857	4,659	4,303	4,275
Teaching assistantships	2,389	2,345	2,450	2,519	2,484	2,508	2,530	2,643
Other types of support	2,785	2,652	2,907	3,059	3,124	3,081	2,992	2,720
Mathematical sciences:								
Total, all types	13,865	14,256	14,679	14,530	14,226	13,410	12,966	12,153
Fellowships	1,126	1,365	1,416	1,363	1,216	1,297	1,285	1,198
Traineeships	181	207	220	258	244	222	179	179
Research assistantships	1,335	1,356	1,410	1,436	1,534	1,451	1,296	1,407
Teaching assistantships	7,871	7,766	7,739	7,586	7,634	7,293	7,127	6,700
Other types of support	3,352	3,562	3,894	3,887	3,598	3,147	3,079	2,669
Computer sciences:								
Total, all types	16,689	16,516	17,486	17,374	16,674	16,490	17,173	18,320
Fellowships	955	901	884	808	908	911	930	942
Traineeships	148	135	148	229	281	227	210	224
Research assistantships	3,334	3,565	3,682	3,802	3,903	3,918	3,978	4,035
Teaching assistantships	3,685	3,503	3,548	3,594	3,374	3,373	3,381	3,639
Other types of support	8,567	8,412	9,224	8,941	8,208	8,061	8,674	9,480
Agricultural sciences:								
Total, all types	9,100	9,289	9,452	9,468	9,492	9,620	9,298	9,110
Fellowships	547	491	505	532	522	492	455	470
Traineeships	113	130	130	171	132	146	137	129
Research assistantships	4,755	5,002	5,174	5,239	5,385	5,377	5,172	5,088
Teaching assistantships	793	782	791	887	886	939	943	961
Other types of support	2,892	2,884	2,852	2,639	2,567	2,666	2,591	2,462
Biological sciences:								
Total, all types	40,945	42,700	44,389	46,481	48,017	48,330	47,744	46,998
Fellowships	4,674	4,688	5,058	5,234	5,523	5,386	5,284	5,481
Traineeships	4,871	5,094	4,830	4,918	5,227	5,302	5,342	5,052
Research assistantships	15,764	16,846	17,627	18,853	19,438	19,249	18,676	18,648
Teaching assistantships	8,702	8,797	8,947	9,163	9,339	9,311	9,361	9,088
Other types of support	6,934	7,275	7,927	8,313	8,490	9,082	9,081	8,729
Psychology:								
Total, all types	30,618	32,258	34,162	34,782	35,288	35,222	35,468	35,522
Fellowships	1,641	1,691	1,858	1,930	1,847	1,844	1,982	2,107
Traineeships	1,129	1,194	1,173	1,113	1,044	1,081	1,166	1,063
Research assistantships	4,051	4,235	4,304	4,557	4,655	4,585	4,763	4,839
Teaching assistantships	5,730	5,750	5,769	6,253	6,058	6,112	6,148	6,148
Other types of support	18,067	19,388	21,058	20,929	21,684	21,600	21,409	21,365

See explanatory information, if any, and SOURCE at end of table.

**Table 24. Full-time graduate students in science, engineering, and health fields in all institutions,
by field and mechanism of support: 1990-97**

Page 2 of 2

Field and mechanism support	1990	1991	1992	1993	1994	1995	1996	1997
Social sciences:								
Total, all types	48,476	50,631	54,257	55,620	56,272	56,230	56,912	55,473
Fellowships	6,323	6,522	7,174	7,402	7,407	7,518	7,711	7,485
Traineeships	1,855	1,705	1,714	1,635	1,662	1,748	1,657	1,533
Research assistantships	6,477	6,818	7,279	7,362	7,401	7,216	7,090	6,720
Teaching assistantships	10,596	10,843	11,182	11,493	11,633	11,772	12,022	11,902
Other types of support	23,225	24,743	26,908	27,728	28,169	27,976	28,432	27,833
Engineering, total:								
Total, all types	65,977	71,034	74,426	73,797	71,566	67,774	65,851	65,594
Fellowships	5,205	5,769	6,124	6,237	6,056	6,013	5,669	5,756
Traineeships	1,017	1,115	1,009	1,062	933	1,009	866	864
Research assistantships	25,299	26,776	27,540	27,931	28,082	27,044	26,513	26,874
Teaching assistantships	10,996	11,264	10,947	11,168	10,767	10,160	10,009	10,152
Other types of support	23,460	26,110	28,806	27,399	25,728	23,548	22,794	21,948
Chemical engineering:								
Total, all types	5,443	5,788	5,946	6,041	6,105	5,957	5,909	5,784
Fellowships	744	691	738	719	705	791	763	831
Traineeships	148	173	153	123	98	105	93	94
Research assistantships	2,839	2,987	3,012	3,120	3,270	3,104	3,052	2,969
Teaching assistantships	941	1,006	1,021	1,018	947	909	920	922
Other types of support	771	931	1,022	1,061	1,085	1,048	1,081	968
Civil engineering:								
Total, all types	10,128	11,328	12,454	12,458	12,641	12,248	11,791	11,259
Fellowships	620	677	802	904	888	918	884	849
Traineeships	211	214	219	210	191	196	178	180
Research assistantships	3,115	3,565	3,936	4,048	4,254	4,225	4,124	3,971
Teaching assistantships	1,652	1,667	1,648	1,818	1,901	1,846	1,788	1,763
Other types of support	4,530	5,205	5,849	5,478	5,407	5,063	4,817	4,496
Electrical engineering:								
Total, all types	18,675	19,904	20,996	20,370	19,412	18,187	17,989	18,926
Fellowships	1,262	1,424	1,502	1,475	1,503	1,446	1,388	1,390
Traineeships	157	187	162	191	158	156	152	122
Research assistantships	6,224	6,556	6,867	6,925	6,855	6,694	6,920	7,486
Teaching assistantships	3,459	3,487	3,451	3,435	3,236	3,106	3,163	3,345
Other types of support	7,573	8,250	9,014	8,344	7,660	6,785	6,366	6,583
Industrial engineering:								
Total, all types	4,770	5,598	6,081	5,902	5,910	5,342	5,128	5,071
Fellowships	250	260	269	281	270	299	234	239
Traineeships	36	32	27	48	32	37	14	17
Research assistantships	1,130	1,249	1,235	1,271	1,342	1,339	1,282	1,264
Teaching assistantships	854	893	891	935	933	823	784	773
Other types of support	2,500	3,164	3,659	3,367	3,333	2,844	2,814	2,778
Mechanical engineering:								
Total, all types	10,867	11,687	12,383	12,395	11,875	11,128	10,690	10,432
Fellowships	715	868	909	926	943	944	907	835
Traineeships	183	179	168	211	187	187	165	215
Research assistantships	4,306	4,630	4,731	4,787	4,688	4,413	4,272	4,355
Teaching assistantships	2,256	2,205	2,185	2,255	2,069	1,930	1,860	1,903
Other types of support	3,407	3,805	4,390	4,216	3,988	3,654	3,486	3,124
Other engineering:								
Total, all types	16,094	16,729	16,566	16,631	15,623	14,912	14,344	14,122
Fellowships	1,614	1,849	1,904	1,932	1,747	1,615	1,493	1,612
Traineeships	282	330	280	279	267	328	264	236
Research assistantships	7,685	7,789	7,759	7,780	7,673	7,269	6,863	6,829
Teaching assistantships	1,834	2,006	1,751	1,707	1,681	1,546	1,494	1,446
Other types of support	4,679	4,755	4,872	4,933	4,255	4,154	4,230	3,999
Total, health fields:								
Total, all types	27,431	29,866	32,099	35,649	39,081	41,895	44,259	46,230
Fellowships	1,732	1,712	1,880	1,990	2,120	2,183	2,474	2,434
Traineeships	5,148	4,951	5,324	5,162	5,348	5,410	5,150	4,812
Research assistantships	3,404	3,961	3,954	3,954	4,378	4,603	4,377	4,838
Teaching assistantships	2,368	2,483	2,504	2,523	2,801	2,833	3,021	3,147
Other types of support	14,779	16,759	18,437	22,020	24,434	26,866	29,237	30,999

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 25. Full-time graduate students in science and engineering fields in all institutions,
by mechanism and source of support: 1990-97**

Page 1 of 2

Mechanism and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Total, all types:								
Total, all sources	265,399	277,174	290,510	294,030	293,048	287,253	284,194	280,612
Federal, total	52,501	56,046	58,298	60,393	60,789	59,408	57,857	56,689
Dept. of Defense	8,492	8,711	8,848	9,315	9,067	9,006	8,471	8,714
Dept. of HHS, total	14,594	15,472	16,274	16,827	17,148	17,110	16,914	16,736
NIH	13,367	14,172	15,043	15,871	15,950	15,672	15,485	15,286
Other HHS	1,227	1,300	1,231	956	1,198	1,438	1,429	1,450
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	2,295	2,565
NSF	11,976	12,610	13,296	13,441	13,873	13,561	13,330	13,228
USDA	2,664	3,015	3,147	3,246	3,348	3,199	2,954	2,602
All other Federal	14,775	16,238	16,733	17,564	17,353	16,532	13,893	12,844
Institutional support	115,864	117,907	120,276	120,899	120,834	120,417	119,086	119,277
Other outside support, total	24,765	25,549	26,075	24,971	25,390	23,926	23,379	23,192
All other U.S.	18,699	19,367	20,075	19,933	20,130	18,909	18,559	18,848
Foreign	6,066	6,182	6,000	5,038	5,260	5,017	4,820	4,344
Self-support	72,269	77,672	85,861	87,767	86,035	83,502	83,872	81,454
Fellowships:								
Total, all sources	23,522	24,983	26,750	27,142	26,774	26,708	26,389	26,456
Federal, total	5,846	6,910	7,222	6,998	6,360	6,364	6,434	6,255
Dept. of Defense	579	677	648	627	523	470	508	517
Dept. of HHS, total	748	818	985	1,033	1,048	1,167	1,153	1,228
NIH	672	722	868	919	917	966	974	1,002
Other HHS	76	96	117	114	131	201	179	226
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	410	373
NSF	2,079	2,233	2,354	2,267	2,275	2,323	2,451	2,310
USDA	103	102	113	113	112	136	111	138
All other Federal	2,337	3,080	3,122	2,958	2,402	2,268	1,801	1,689
Institutional support	12,070	12,314	13,409	13,980	13,928	14,299	14,402	15,233
Other outside support, total	5,606	5,759	6,119	6,164	6,486	6,045	5,553	4,968
All other U.S.	3,466	3,550	3,798	3,702	4,069	3,813	3,402	3,112
Foreign	2,140	2,209	2,321	2,462	2,417	2,232	2,151	1,856
Self-support	N/A							
Traineeships:								
Total, all sources	10,064	10,466	10,051	10,296	10,344	10,543	10,338	9,667
Federal, total	4,876	5,454	5,551	5,773	5,857	5,630	5,515	5,155
Dept. of Defense	85	116	94	113	122	104	124	108
Dept. of HHS, total	4,043	4,384	4,387	4,378	4,493	4,347	4,256	3,988
NIH	3,732	4,084	4,106	4,194	4,206	3,990	3,990	3,807
Other HHS	311	300	281	184	287	357	266	181
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	67	76
NSF	45	80	104	165	258	338	431	383
USDA	53	34	28	42	37	18	24	23
All other Federal	650	840	938	1,075	947	823	613	577
Institutional support	4,433	4,275	3,712	3,635	3,606	4,214	4,254	3,877
Other outside support, total	755	737	788	888	881	699	569	635
All other U.S.	516	552	581	594	660	504	385	484
Foreign	239	185	207	294	221	195	184	151
Self-support	N/A							
Research assistantships:								
Total, all sources	77,342	81,214	84,076	86,202	87,633	85,347	83,318	83,207
Federal, total	37,264	39,352	41,075	43,029	43,895	42,936	41,826	41,370
Dept. of Defense	5,382	5,452	5,703	6,204	6,177	6,261	5,965	6,326
Dept. of HHS, total	9,495	9,958	10,473	10,976	11,233	11,166	11,035	11,025
NIH	8,701	9,099	9,700	10,386	10,518	10,368	10,154	10,083
Other HHS	794	859	773	590	715	798	881	942
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	1,775	2,059
NSF	9,692	10,144	10,628	10,769	11,145	10,600	10,223	10,354
USDA	2,386	2,761	2,896	2,964	3,073	2,946	2,707	2,369
All other Federal	10,309	11,037	11,375	12,116	12,267	11,963	10,121	9,237
Institutional support	28,381	29,426	29,953	29,900	30,639	30,152	29,175	29,311
Other outside support, total	11,697	12,436	13,048	13,273	13,099	12,259	12,317	12,526
All other U.S.	10,984	11,630	12,237	12,415	12,336	11,519	11,578	11,787
Foreign	713	806	811	858	763	740	739	739
Self-support	N/A							

See explanatory information, if any, and SOURCE at end of table.

**Table 25. Full-time graduate students in science and engineering fields in all institutions,
by mechanism and source of support: 1990-97**

Page 2 of 2

Mechanism and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Teaching assistantships:								
Total, all sources	62,597	62,746	63,221	64,792	64,068	63,164	62,768	62,052
Federal, total	554	428	574	776	677	646	741	776
Dept. of Defense	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept. of HHS, total	95	87	166	162	136	113	180	145
NIH	77	74	149	156	127	106	176	115
Other HHS	18	13	17	6	9	7	4	30
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	2	24
NSF	84	73	112	140	107	157	117	81
USDA	44	33	28	46	49	37	42	30
All other Federal	331	235	268	428	385	339	400	496
Institutional support	61,534	61,810	62,106	63,432	62,781	61,980	61,405	60,693
Other outside support, total	509	508	541	584	610	538	622	583
All other U.S.	509	508	541	584	610	538	622	583
Foreign	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Self-support	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other types of support:								
Total, all sources	91,874	97,765	106,412	105,598	104,229	101,491	101,381	99,230
Federal, total	3,961	3,902	3,876	3,817	4,000	3,832	3,341	3,133
Dept. of Defense	2,446	2,466	2,403	2,371	2,245	2,171	1,874	1,763
Dept. of HHS, total	213	225	263	278	238	317	290	350
NIH	185	193	220	216	182	242	191	279
Other HHS	28	32	43	62	56	75	99	71
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	41	33
NSF	76	80	98	100	88	143	108	100
USDA	78	85	82	81	77	62	70	42
All other Federal	1,148	1,046	1,030	987	1,352	1,139	958	845
Institutional support	9,446	10,082	11,096	9,952	9,880	9,772	9,850	10,163
Other outside support, total	6,198	6,109	5,579	4,062	4,314	4,385	4,318	4,480
All other U.S.	3,224	3,127	2,918	2,638	2,455	2,535	2,572	2,882
Foreign	2,974	2,982	2,661	1,424	1,859	1,850	1,746	1,598
Self-support	72,269	77,672	85,861	87,767	86,035	83,502	83,872	81,454

¹ Data for NASA were not collected separately prior to 1996.

KEY: N/A = Not applicable

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 26. Full-time students in graduate school for the first time in science, engineering, and health fields in all institutions, by detailed field: 1990-97

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	87,429	93,172	95,832	92,798	92,221	89,445	88,953	88,915
Total, science and engineering fields	76,575	81,458	83,134	79,313	78,056	74,384	73,479	73,513
Sciences, total	56,492	58,914	60,890	58,975	58,287	56,310	55,472	54,694
Physical sciences, total	6,809	7,107	6,910	6,690	6,454	6,131	6,019	6,035
Astronomy	172	153	161	153	164	147	157	125
Chemistry	3,814	4,088	3,910	3,842	3,813	3,712	3,707	3,764
Physics	2,777	2,820	2,773	2,642	2,381	2,188	2,088	2,074
Physical sciences, n.e.c.	46	46	66	53	96	84	67	72
Earth, atmos., & ocean sci., total	2,694	2,909	3,018	2,987	3,012	2,805	2,640	2,693
Atmospheric sciences	247	224	235	214	224	198	213	224
Geosciences	1,363	1,506	1,506	1,506	1,522	1,427	1,328	1,349
Oceanography	452	472	501	487	518	418	370	408
Earth, atmos., & ocean sci., n.e.c.	632	707	776	780	748	762	729	712
Mathematical sciences	4,269	4,350	4,443	4,044	3,963	3,578	3,450	3,302
Computer sciences	5,378	5,558	5,477	4,741	4,754	4,782	4,908	4,990
Agricultural sciences	2,413	2,434	2,219	2,301	2,301	2,240	2,122	2,103
Biological sciences, total	10,220	10,676	10,890	11,114	11,376	11,417	10,832	11,113
Anatomy	203	248	231	199	222	252	260	214
Biochemistry	1,024	1,034	1,027	1,089	1,034	981	945	994
Biology	2,513	2,709	2,789	2,752	2,733	2,688	2,574	2,675
Biometry/epidemiology	440	461	603	667	657	738	671	661
Biophysics	129	157	145	143	149	153	155	133
Botany	508	548	548	517	483	443	443	415
Cell biology	563	608	655	697	761	717	743	800
Ecology	187	190	212	250	285	308	245	247
Entomology/parasitology	220	230	216	239	206	184	202	194
Genetics	292	312	296	342	345	344	387	436
Microbio., immunology, & virology	955	900	873	845	906	910	848	871
Nutrition	850	818	764	836	795	854	825	789
Pathology	241	274	268	324	334	296	291	350
Pharmacology	538	542	550	513	530	498	420	454
Physiology	645	596	589	616	649	811	725	634
Zoology	407	464	393	379	348	356	327	326
Biosciences, n.e.c.	505	585	731	706	939	884	771	920
Psychology	8,925	9,457	10,172	9,686	9,530	9,241	9,152	8,790
Social sciences, total	15,784	16,423	17,761	17,412	16,897	16,116	16,349	15,668
Agricultural economics	609	623	683	570	533	492	436	467
Anthropology (cultural & social)	1,122	1,271	1,289	1,309	1,331	1,247	1,252	1,196
Economics (except agricultural)	2,822	2,893	3,007	2,837	2,793	2,605	2,466	2,364
Geography	769	827	886	999	959	836	870	914
Linguistics	712	675	650	611	612	594	620	552
Political science	5,775	6,121	6,714	6,567	6,131	5,916	5,842	5,261
Sociology	1,534	1,550	1,774	1,732	1,548	1,503	1,505	1,529
Sociology/anthropology	237	160	202	200	229	147	210	171
Social sciences, other	2,204	2,303	2,556	2,587	2,761	2,776	3,148	3,214
Engineering, total	20,083	22,544	22,244	20,338	19,769	18,074	18,007	18,819
Aerospace engineering	933	1,125	1,053	963	793	650	687	735
Agricultural engineering	205	207	193	161	193	177	183	165
Biomedical engineering	476	516	599	601	566	592	572	671
Chemical engineering	1,404	1,517	1,480	1,520	1,461	1,418	1,470	1,463
Civil engineering	3,692	4,210	4,331	4,019	4,194	3,825	3,845	3,745
Electrical engineering	5,715	6,243	6,112	5,485	5,452	4,975	4,859	5,513
Engineering science	259	312	347	316	313	275	273	274
Industrial/manufacturing eng.	1,719	2,045	1,926	1,647	1,721	1,523	1,591	1,529
Mechanical engineering	3,243	3,771	3,820	3,514	3,218	2,832	2,785	2,829
Metallurgical/materials eng.	934	997	997	871	842	805	777	850
Nuclear engineering	294	260	283	258	208	187	182	178
Engineering, other	1,209	1,341	1,103	983	808	815	783	867
Total, health fields	10,854	11,714	12,698	13,485	14,165	15,061	15,474	15,402
Clinical fields	584	787	836	795	780	811	885	1,016
Dental sciences	332	339	410	421	405	373	386	377
Nursing	2,229	2,407	2,391	2,420	2,615	2,685	2,653	2,845
Pharmaceutical sciences	538	557	480	481	489	463	521	489
Preventive medicine/community health	2,163	1,939	2,146	2,299	2,204	2,587	2,300	2,085
Speech pathology/audiology	2,479	2,897	3,187	3,328	3,519	3,615	3,911	3,830
Veterinary sciences	174	152	155	138	158	157	119	128
Other health fields	2,355	2,636	3,093	3,603	3,995	4,370	4,699	4,632

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 27. Graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

Page 1 of 2

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Total, all surveyed fields	487,104	23,534	1,968	30,399	18,107	286,410	22,994	103,692
Total, science and engineering fields	407,644	19,363	1,599	26,078	14,988	227,936	18,871	98,809
Sciences, total	306,636	16,489	1,361	17,924	12,177	181,919	14,379	62,387
Physical sciences, total	31,108	952	70	1,638	784	15,749	1,001	10,914
Astronomy	778	11	1	39	11	514	17	185
Chemistry	18,794	667	50	1,106	525	9,711	604	6,131
Physics	11,147	245	18	467	237	5,268	373	4,539
Physical sciences, n.e.c.	389	29	1	26	11	256	7	59
Earth, atmos., & ocean sci.,total	14,644	206	82	417	407	10,486	530	2,516
Atmospheric sciences	1,092	12	2	56	12	657	62	291
Geosciences	6,997	56	38	166	164	5,022	258	1,293
Oceanography	2,458	26	17	60	113	1,683	52	507
Earth, atmos., & ocean sci., n.e.c.	4,097	112	25	135	118	3,124	158	425
Mathematical sciences, total	16,759	657	43	1,052	426	8,382	651	5,548
Mathematics & applied mathematics	14,078	608	40	822	385	7,112	599	4,512
Statistics	2,681	49	3	230	41	1,270	52	1,036
Computer sciences	36,010	1,303	60	4,702	726	14,050	2,361	12,808
Agricultural sciences	11,810	229	62	302	400	7,745	347	2,725
Biological sciences, total	57,135	2,171	198	4,478	1,983	35,041	2,098	11,166
Anatomy	1,094	44	3	107	15	669	34	222
Biochemistry	5,093	126	15	567	146	2,674	167	1,398
Biology	14,643	765	60	888	692	9,433	749	2,056
Biometry/epidemiology	2,900	160	11	314	137	1,641	126	511
Biophysics	748	17	1	86	17	415	41	171
Botany	2,402	88	3	76	50	1,436	57	692
Cell biology	3,981	104	9	339	110	2,482	111	826
Ecology	1,659	15	8	47	47	1,295	78	169
Entomology/parasitology	1,161	14	1	41	42	749	24	290
Genetics	1,760	37	6	131	42	1,092	34	418
Microbio., immunology, & virology	4,854	194	11	479	172	2,872	132	994
Nutrition	4,550	196	12	266	149	2,732	90	1,105
Pathology	1,674	39	11	171	44	1,044	71	294
Pharmacology	2,582	114	5	245	84	1,534	52	548
Physiology	2,298	101	7	331	65	1,283	87	424
Zoology	1,730	14	12	55	30	1,392	29	198
Biosciences, n.e.c.	4,006	143	23	335	141	2,298	216	850
Psychology, total	53,142	3,641	340	1,892	3,084	38,699	3,481	2,005
Psychology, general	17,375	1,536	110	609	914	12,809	735	662
Clinical psychology	12,893	714	108	539	897	9,720	586	329
Psychology, n.e.c.	22,874	1,391	122	744	1,273	16,170	2,160	1,014
Social sciences, total	86,028	7,330	506	3,443	4,367	51,767	3,910	14,705
Agricultural economics	2,043	65	3	49	53	906	47	920
Anthropology (cultural & social)	7,558	254	103	236	338	5,639	286	702
Economics (except agricultural)	11,069	323	16	548	276	4,192	343	5,371
Geography	4,287	83	15	119	91	3,266	189	524
History and philosophy of science	443	8	1	21	10	303	33	67
Linguistics	3,008	45	7	204	157	1,476	147	972
Political science	32,039	3,696	155	1,263	1,924	19,952	1,627	3,422
Sociology	9,423	1,053	76	402	575	5,839	310	1,168
Sociology/anthropology	948	108	10	21	44	606	66	93
Social sciences, n.e.c.	15,210	1,695	120	580	899	9,588	862	1,466
Engineering, total	101,008	2,874	238	8,154	2,811	46,017	4,492	36,422
Aerospace engineering	3,083	35	3	153	71	1,440	63	3,318
Agricultural engineering	941	21	8	47	17	384	44	420
Biomedical engineering	2,847	83	6	313	56	1,567	112	710
Chemical engineering	7,247	170	18	512	142	3,343	218	2,844
Civil engineering	17,033	443	58	1,046	693	9,142	627	5,024
Electrical engineering	30,617	869	46	3,481	810	11,106	1,636	12,669
Engineering science	1,647	39	4	202	41	881	32	448
Industrial/manufacturing eng.	11,725	478	23	729	390	6,199	569	3,337
Mechanical engineering	15,044	428	35	947	360	6,978	602	5,694
Metallurgical/materials eng.	4,649	109	11	295	86	1,994	198	1,956
Mining engineering	348	0	0	46	7	161	9	125
Nuclear engineering	868	21	3	38	22	475	6	303
Petroleum engineering	565	7	1	49	11	106	8	383
Engineering, n.e.c.	4,394	171	22	296	105	2,241	368	1,191

See explanatory information, if any, and SOURCE at end of table.

Table 27. Graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

Page 2 of 2

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Total, health fields	79,460	4,171	369	4,321	3,119	58,474	4,123	4,883
Medical fields, total	15,234	1,013	83	1,616	771	9,248	932	1,571
Anesthesiology	840	40	6	22	17	600	153	2
Cardiology	48	0	0	1	6	14	2	25
Oncology/cancer research	198	6	2	30	7	118	1	34
Endocrinology	43	1	0	5	3	13	0	21
Gastroenterology	3	0	0	0	0	0	0	3
Hematology	3	0	0	0	0	3	0	0
Neurology	1,696	38	13	176	69	1,137	47	216
Obstetrics and gynecology	18	0	0	9	1	8	0	0
Ophthalmology	33	0	0	12	0	15	0	6
Otorhinolaryngology	2	0	0	0	0	2	0	0
Pediatrics	434	46	3	31	9	295	21	29
Preventive medicine/community health	10,000	791	52	1,059	587	5,948	471	1,092
Psychiatry	249	15	2	12	6	192	3	19
Pulmonary disease	0	0	0	0	0	0	0	0
Radiology	267	5	1	45	10	148	14	44
Surgery	244	15	1	29	1	180	8	10
Clinical medicine, n.e.c.	1,156	56	3	185	55	575	212	70
Other health fields, total	64,226	3,158	286	2,705	2,348	49,226	3,191	3,312
Dental sciences	1,434	25	4	153	57	841	20	334
Nursing	26,679	1,527	149	967	956	21,200	1,399	481
Pharmaceutical sciences	3,051	131	3	239	135	1,251	126	1,166
Speech pathology/audiology	13,320	574	53	230	436	11,093	584	350
Veterinary sciences	1,175	38	7	26	29	755	14	306
Health related, n.e.c.	18,567	863	70	1,090	735	14,086	1,048	675

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 28. Male graduate students in science, engineering, and health fields in all institutions,
by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997**

Page 1 of 2

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non- Hispanic	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	White non- Hispanic	Other or unknown	
Total, all surveyed fields	264,421	9,111	890	17,193	8,512	143,683	12,037	72,995
Total, science and engineering fields	245,615	8,344	804	15,769	7,696	131,453	11,008	70,541
Sciences, total	163,322	6,385	624	9,406	5,525	93,702	7,385	40,295
Physical sciences, total	22,257	508	46	1,045	500	11,571	689	7,898
Astronomy	570	6	0	22	9	377	10	146
Chemistry	12,066	319	30	629	289	6,490	368	3,941
Physics	9,403	174	15	381	197	4,551	309	3,776
Physical sciences, n.e.c.	218	9	1	13	5	153	2	35
Earth, atmos., & ocean sci., total	9,187	105	47	253	240	6,413	332	1,797
Atmospheric sciences	829	8	1	36	9	540	42	193
Geosciences	4,686	36	21	118	104	3,238	166	1,003
Oceanography	1,415	11	9	35	57	928	32	343
Earth, atmos., & ocean sci., n.e.c.	2,257	50	16	64	70	1,707	92	258
Mathematical sciences	10,875	348	29	624	256	5,335	441	3,842
Computer sciences	26,133	768	43	3,050	516	10,909	1,711	9,136
Agricultural sciences	7,277	105	34	164	242	4,639	189	1,904
Biological sciences, total	28,513	783	91	2,170	900	17,496	1,058	6,015
Anatomy	580	20	1	52	8	338	22	139
Biochemistry	2,922	63	7	307	70	1,587	82	806
Biology	7,370	282	30	415	325	4,864	382	1,072
Biometry/epidemiology	1,119	56	4	114	40	597	53	255
Biophysics	532	10	0	65	13	289	29	126
Botany	1,283	32	0	39	31	743	32	406
Cell biology	2,091	48	2	175	56	1,313	60	437
Ecology	867	9	2	21	27	651	50	107
Entomology/parasitology	751	6	1	24	26	478	11	205
Genetics	801	13	1	65	17	453	13	239
Microbio., immunology, & virology	2,431	72	6	222	71	1,461	64	535
Nutrition	1,138	38	1	57	30	578	21	413
Pathology	842	9	8	85	19	513	39	169
Pharmacology	1,362	41	3	116	42	853	25	282
Physiology	1,364	30	3	212	33	788	43	255
Zoology	974	5	10	33	17	776	12	121
Biosciences, n.e.c.	2,086	49	12	168	75	1,214	120	448
Psychology	15,499	908	118	506	860	11,300	1,058	749
Social sciences, total	43,581	2,860	216	1,594	2,011	26,039	1,907	8,954
Agricultural economics	1,355	29	0	27	32	591	30	646
Anthropology (cultural & social)	3,058	79	44	74	143	2,276	114	328
Economics (except agricultural)	7,563	196	8	347	185	2,842	256	3,729
Geography	2,662	47	10	58	60	2,036	124	327
Linguistics	1,034	15	3	62	51	510	44	349
Political science	16,655	1,442	69	611	885	10,722	859	2,067
Sociology	3,592	384	26	143	211	2,135	113	580
Sociology/anthropology	377	41	6	9	17	236	24	44
Social sciences, other	7,285	627	50	263	427	4,691	343	884
Engineering, total	82,293	1,959	180	6,363	2,171	37,751	3,623	30,246
Aerospace engineering	2,712	28	3	137	63	1,257	50	1,174
Agricultural engineering	723	14	6	32	12	303	26	330
Biomedical engineering	2,021	34	5	228	39	1,095	90	530
Chemical engineering	5,538	84	10	361	105	2,607	164	2,207
Civil engineering	12,874	299	41	757	487	6,832	481	3,977
Electrical engineering	26,158	676	39	2,786	688	9,945	1,359	10,665
Engineering science	1,369	31	3	157	32	739	28	379
Industrial eng./manufacturing eng.	9,115	261	17	554	275	4,798	446	2,764
Mechanical engineering	13,265	324	27	804	298	6,216	515	5,081
Metallurgical/materials eng.	3,555	66	9	218	52	1,510	154	1,546
Nuclear engineering	725	12	2	26	16	404	5	260
Engineering, other	4,238	130	18	303	104	2,045	305	1,333

See explanatory information, if any, and SOURCE at end of table.

**Table 28. Male graduate students in science, engineering, and health fields in all institutions,
by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997**

Page 2 of 2

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non- Hispanic	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	White non- Hispanic	Other or unknown	
Total, health fields	18,806	767	86	1,424	816	12,230	1,029	2,454
Clinical fields	1,527	54	5	199	49	842	247	131
Dental sciences	893	13	3	80	35	543	11	208
Nursing	2,032	76	18	67	142	1,562	90	77
Pharmaceutical sciences	1,526	39	2	107	38	652	65	623
Preventive medicine/community health	4,007	229	24	421	210	2,270	182	671
Speech pathology/audiology	1,075	60	7	26	48	804	49	81
Veterinary sciences	586	13	1	12	16	341	10	193
Other health fields	7,160	283	26	512	278	5,216	375	470

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 29. Female graduate students in science, engineering, and health fields in all institutions,
by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997**

Page 1 of 2

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non- Hispanic	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	White non- Hispanic	Other or unknown	
Total, all surveyed fields	222,683	14,423	1,078	13,206	9,595	142,727	10,957	30,697
Total, science and engineering fields	162,029	11,019	795	10,309	7,292	96,483	7,863	28,268
Sciences, total	143,314	10,104	737	8,518	6,652	88,217	6,994	22,092
Physical sciences, total	8,851	444	24	593	284	4,178	312	3,016
Astronomy	208	5	1	17	2	137	7	39
Chemistry	6,728	348	20	477	236	3,221	236	2,190
Physics	1,744	71	3	86	40	717	64	763
Physical sciences, n.e.c.	171	20	0	13	6	103	5	24
Earth, atmos., & ocean sci., total	5,457	101	35	164	167	4,073	198	719
Atmospheric sciences	263	4	1	20	3	117	20	98
Geosciences	2,311	20	17	48	60	1,784	92	290
Oceanography	1,043	15	8	25	56	755	20	164
Earth, atmos., & ocean sci., n.e.c.	1,840	62	9	71	48	1,417	66	167
Mathematical sciences	5,884	309	14	428	170	3,047	210	1,706
Computer sciences	9,877	535	17	1,652	210	3,141	650	3,672
Agricultural sciences	4,533	124	28	138	158	3,106	158	821
Biological sciences, total	28,622	1,388	107	2,308	1,083	17,545	1,040	5,151
Anatomy	514	24	2	55	7	331	12	83
Biochemistry	2,171	63	8	260	76	1,087	85	592
Biology	7,273	483	30	473	367	4,569	367	984
Biometry/epidemiology	1,781	104	7	200	97	1,044	73	256
Biophysics	216	7	1	21	4	126	12	45
Botany	1,119	56	3	37	19	693	25	286
Cell biology	1,890	56	7	164	54	1,169	51	389
Ecology	792	6	6	26	20	644	28	62
Entomology/parasitology	410	8	0	17	16	271	13	85
Genetics	959	24	5	66	25	639	21	179
Microbio., immunology, & virology	2,423	122	5	257	101	1,411	68	459
Nutrition	3,412	158	11	209	119	2,154	69	692
Pathology	832	30	3	86	25	531	32	125
Pharmacology	1,220	73	2	129	42	681	27	266
Physiology	934	71	4	119	32	495	44	169
Zoology	756	9	2	22	13	616	17	77
Biosciences, n.e.c.	1,920	94	11	167	66	1,084	96	402
Psychology	37,643	2,733	222	1,386	2,224	27,399	2,423	1,256
Social sciences, total	42,447	4,470	290	1,849	2,356	25,728	2,003	5,751
Agricultural economics	688	36	3	22	21	315	17	274
Anthropology (cultural & social)	4,500	175	59	162	195	3,363	172	374
Economics (except agricultural)	3,506	127	8	201	91	1,350	87	1,642
Geography	1,625	36	5	61	31	1,230	65	197
Linguistics	1,974	30	4	142	106	966	103	623
Political science	15,384	2,254	86	652	1,039	9,230	768	1,355
Sociology	5,831	669	50	259	364	3,704	197	588
Sociology/anthropology	571	67	4	12	27	370	42	49
Social sciences, other	8,368	1,076	71	338	482	5,200	552	649
Engineering, total	18,715	915	58	1,791	640	8,266	869	6,176
Aerospace engineering	371	7	0	16	8	183	13	144
Agricultural engineering	218	7	2	15	5	81	18	90
Biomedical engineering	826	49	1	85	17	472	22	180
Chemical engineering	1,709	86	8	151	37	736	54	637
Civil engineering	4,159	144	17	289	206	2,310	146	1,047
Electrical engineering	4,459	193	7	695	122	1,161	277	2,004
Engineering science	278	8	1	45	9	142	4	69
Industrial eng./manufacturing eng.	2,610	217	6	175	115	1,401	123	573
Mechanical engineering	1,779	104	8	143	62	762	87	613
Metallurgical/materials eng.	1,094	43	2	77	34	484	44	410
Nuclear engineering	143	9	1	12	6	71	1	43
Engineering, other	1,069	48	5	88	19	463	80	366

See explanatory information, if any, and SOURCE at end of table.

**Table 29. Female graduate students in science, engineering, and health fields in all institutions,
by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997**

Page 2 of 2

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non- Hispanic	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	White non- Hispanic	Other or unknown	
Total, health fields	60,654	3,404	283	2,897	2,303	46,244	3,094	2,429
Clinical fields	2,011	130	13	182	66	1,321	167	132
Dental sciences	541	12	1	73	22	298	9	126
Nursing	24,647	1,451	131	900	814	19,638	1,309	404
Pharmaceutical sciences	1,525	92	1	132	97	599	61	543
Preventive medicine/community health	5,993	562	28	638	377	3,678	289	421
Speech pathology/audiology	12,245	514	46	204	388	10,289	535	269
Veterinary sciences	589	25	6	14	13	414	4	113
Other health fields	13,103	618	57	754	526	10,007	720	421

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 1 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Total, all institutions	306,636	16,489	1,361	17,924	12,177	181,919	14,379	62,387
New England	21,171	519	59	1,015	533	11,678	1,595	5,772
Connecticut	4,633	138	14	180	117	2,770	253	1,161
Central Connecticut State University	45	0	0	1	1	37	1	5
Connecticut College	20	0	0	0	0	19	0	1
Quinnipiac College	1	0	0	0	0	1	0	0
Rensselaer at Hartford	300	4	0	19	5	186	46	40
Southern Connecticut State University	345	33	0	8	11	264	24	5
St. Joseph College	101	4	0	0	1	96	0	0
Trinity College	31	2	0	2	3	24	0	0
University of Bridgeport	197	0	1	10	4	65	0	117
University of Connecticut	1,454	26	5	59	41	906	7	410
University of Hartford	205	13	1	0	8	160	1	22
University of New Haven	535	28	0	20	8	397	18	64
Wesleyan University	119	6	0	6	5	57	0	45
Western Connecticut State University	43	0	0	1	0	40	2	0
Yale University	1,237	22	7	54	30	518	154	452
Maine	446	1	2	4	0	330	3	106
University of Maine	446	1	2	4	0	330	3	106
University of New England	0	0	0	0	0	0	0	0
Massachusetts	13,402	323	36	743	371	6,728	1,246	3,955
American International College	184	1	0	0	0	170	0	13
Anna Maria College	59	0	0	0	0	59	0	0
Assumption College	61	0	0	0	0	50	11	0
Boston College	464	13	0	16	13	305	1	116
Boston University	2,038	32	2	136	28	732	518	590
Brandeis University	549	8	4	30	32	277	0	198
Bridgewater State College	75	1	1	4	0	63	4	2
Clark University	269	3	0	9	4	126	30	97
Emerson College	0	0	0	0	0	0	0	0
Framingham State College	2	0	0	0	0	2	0	0
Harvard University	2,857	114	14	229	111	1,402	152	835
MGH Institute of Health Professions	0	0	0	0	0	0	0	0
Mass College of Pharmacy/Allied Health	23	0	0	1	1	0	1	20
Massachusetts Institute of Technology	1,834	51	4	131	53	954	33	608
Mount Holyoke College	8	1	0	0	0	7	0	0
Northeastern University	788	17	3	12	9	212	208	327
Salem State College	6	0	0	0	0	0	6	0
Smith College	7	0	0	0	1	3	0	3
Tufts University	676	14	0	40	17	466	4	135
University of Massachusetts	2,213	53	4	67	88	1,150	192	659
University of Massachusetts Dartmouth	164	0	3	3	2	111	3	42
University of Massachusetts Lowell	751	13	0	40	7	414	81	196
Western New England College	0	0	0	0	0	0	0	0
Williams College	17	0	0	0	0	0	0	17
Woods Hole Oceanographic Institution	110	0	1	7	2	74	0	26
Worcester Polytechnic Institute	236	2	0	17	3	143	0	71
Worcester State College	11	0	0	1	0	8	2	0
New Hampshire	968	9	0	30	13	673	72	171
Dartmouth College	295	4	0	15	5	215	0	56
Rivier College	78	0	0	4	0	34	31	9
University of New Hampshire	595	5	0	11	8	424	41	106
Rhode Island	1,244	35	6	43	21	773	21	345
Brown University	627	19	3	22	9	325	2	247
Rhode Island College	37	0	1	1	0	29	6	0
University of Rhode Island	580	16	2	20	12	419	13	98
Vermont	478	13	1	15	11	404	0	34
Goddard College	30	2	0	4	2	22	0	0

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 2 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Vermont, continued:								
Marlboro College	1	0	0	0	0	1	0	0
Middlebury College	0	0	0	0	0	0	0	0
University of Vermont	447	11	1	11	9	381	0	34
Middle Atlantic	52,789	2,732	102	3,623	1,717	28,615	4,274	11,726
New Jersey	7,550	363	8	768	243	3,678	700	1,790
College of New Jersey, The	0	0	0	0	0	0	0	0
Drew University	0	0	0	0	0	0	0	0
Fairleigh Dickinson University	817	40	2	51	29	487	54	154
Kean College of New Jersey	333	36	0	14	16	239	21	7
Monmouth University	93	1	0	14	1	25	14	38
Montclair State University	453	20	0	60	21	271	81	0
New Jersey Institute of Technology	936	33	0	161	42	159	185	356
Princeton University	899	22	1	45	17	456	6	352
Rutgers the State Univ of New Jersey	2,793	161	1	266	69	1,464	158	674
Seton Hall University	546	28	4	45	18	264	177	10
Stevens Institute of Technology	439	7	0	80	12	204	2	134
Univ of Med and Dentistry of New Jersey	198	12	0	24	13	87	2	60
William Paterson U of NJ	43	3	0	8	5	22	0	5
New York	31,565	1,857	61	2,116	1,253	16,077	3,025	7,176
Adelphi University	318	16	1	10	16	185	77	13
Albany Medical College	96	3	0	10	1	56	2	24
Alfred University	58	1	0	1	0	56	0	0
CUNY Bernard Baruch College	443	70	0	54	47	88	133	51
CUNY Brooklyn College	394	105	1	49	18	109	83	29
CUNY City College	603	89	2	80	70	155	13	194
CUNY College of Staten Island	72	2	0	22	3	26	19	0
CUNY Graduate School and Univ Center	1,899	81	3	66	74	1,195	17	463
CUNY Herbert H. Lehman College	52	7	0	10	12	10	5	8
CUNY Hunter College	186	8	0	16	10	94	33	25
CUNY John Jay College of Crim Justice	889	82	0	2	24	737	17	27
CUNY Mt. Sinai School of Medicine	183	10	0	35	4	70	0	64
CUNY Queens College	531	46	0	89	29	160	107	100
Clarkson University	61	1	0	0	0	23	0	37
College of New Rochelle	161	27	0	1	7	54	72	0
College of St Rose	128	2	0	2	1	115	8	0
Columbia Univ in the City of New York	1,716	37	1	219	34	789	69	567
Cooper Union	0	0	0	0	0	0	0	0
Cornell University	2,532	61	11	140	62	1,269	1	988
Fordham University	471	13	0	24	30	230	118	56
Hofstra University	371	6	2	6	5	148	184	20
Iona College	197	10	0	15	6	61	105	0
Ithaca College	0	0	0	0	0	0	0	0
Long Island University	1,047	194	1	39	81	501	101	130
Manhattan College	7	0	0	1	1	1	0	4
Marist College	246	1	0	39	5	193	8	0
New School for Social Research	1,060	93	1	40	67	492	81	286
New York Institute of Technology	547	44	2	87	20	227	0	167
New York Medical College	188	9	0	22	6	79	35	37
New York University	2,791	173	4	231	99	1,104	298	882
Niagara University	18	2	0	0	0	9	0	7
Pace University	564	35	0	36	27	211	196	59
Polytechnic University	514	13	0	60	10	151	193	87
Pratt Institute	0	0	0	0	0	0	0	0
Rensselaer Polytechnic Institute	436	12	1	13	10	275	15	110
Rochester Institute of Technology	351	5	0	23	5	205	18	95
Russell Sage College	172	6	0	0	0	105	60	1
SUNY Health Science Center at Syracuse	68	1	0	6	0	50	0	11
SUNY College at Brockport	448	11	0	3	4	424	0	6
SUNY College at Buffalo	22	1	0	0	0	16	1	4
SUNY College at Cortland	0	0	0	0	0	0	0	0

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 3 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
New York, continued:								
SUNY College at Fredonia	27	1	0	0	0	26	0	0
SUNY College at Geneseo	3	0	0	1	0	2	0	0
SUNY College at Oneonta	7	0	0	0	0	7	0	0
SUNY College at Oswego	135	5	0	0	3	127	0	0
SUNY College at Plattsburgh	20	0	0	0	0	20	0	0
SUNY College at Potsdam	8	0	0	0	0	8	0	0
SUNY College of Env Science and Forestry	305	2	1	1	9	229	0	63
SUNY College of Optometry	0	0	0	0	0	0	0	0
SUNY Health Science Center at Brooklyn	78	3	0	24	1	16	0	34
SUNY Inst of Technology at Utica-Rome	48	1	1	1	1	41	3	0
SUNY at Albany	2,056	105	4	29	94	1,162	314	348
SUNY at Binghamton	857	43	4	27	30	503	0	250
SUNY at Buffalo	1,609	51	3	164	36	978	8	369
SUNY at New Paltz	110	5	0	9	2	70	2	22
SUNY at Stony Brook	1,591	38	5	122	37	721	14	654
Saint John's University	455	37	2	17	36	276	43	44
Sarah Lawrence College	56	1	1	3	0	35	2	14
St. Bonaventure University	7	0	0	0	0	7	0	0
Syracuse University	797	35	2	12	25	322	199	202
Teachers College, Columbia University	1,906	211	7	150	125	891	346	176
The Rockefeller University	105	5	0	14	5	31	2	48
Union College	21	0	0	4	0	14	0	3
University of Rochester	909	11	1	51	13	532	6	295
Vassar College	0	0	0	0	0	0	0	0
Wagner College	21	0	0	1	1	6	13	0
Yeshiva University	594	26	0	35	47	380	4	102
Pennsylvania	13,674	512	33	739	221	8,860	549	2,760
Allegheny Univ. of the Health Sciences	510	31	1	57	10	337	33	41
Bloomsburg University of Pennsylvania	21	0	0	0	1	19	0	1
Bryn Mawr College	108	2	1	2	1	90	2	10
Bucknell University	27	0	0	0	0	23	0	4
California University of Pennsylvania	145	3	0	0	0	135	0	7
Carnegie Mellon University	1,141	52	5	57	18	582	86	341
Clarion University of Pennsylvania	27	1	0	0	0	26	0	0
Drexel University	953	43	5	36	8	555	103	203
Duquesne University	337	5	0	2	2	285	2	41
East Stroudsburg Univ of Pennsylvania	103	4	1	5	1	92	0	0
Edinboro University of Pennsylvania	105	2	0	1	1	101	0	0
Gannon University	92	5	0	1	1	85	0	0
Indiana University of Pennsylvania	317	18	0	12	5	254	0	28
Kutztown University of Pennsylvania	144	1	0	7	3	133	0	0
Lehigh University	470	10	1	13	10	272	98	66
Mansfield University of Pennsylvania	8	0	0	0	0	8	0	0
Marywood College	178	3	0	0	1	170	4	0
Medical College of Pennsylvania, The	0	0	0	0	0	0	0	0
Millersville University of Pennsylvania	113	5	0	1	2	102	0	3
Pennsylvania State University	2,412	67	4	66	43	1,562	13	657
Philadelphia Col of Osteopathic Med	157	8	0	10	5	134	0	0
Philadelphia Coll of Pharmacy and Sci	21	0	0	4	0	9	0	8
Shippensburg University of Pennsylvania	317	17	2	0	4	283	0	11
Slippery Rock University of Pennsylvania	158	3	0	0	0	153	0	2
St Joseph's University	258	21	0	79	3	138	0	17
Swarthmore College	0	0	0	0	0	0	0	0
Temple University	882	66	5	79	20	508	15	189
Thomas Jefferson University	281	14	2	29	18	194	0	24
University of Pennsylvania	1,558	45	0	88	20	814	63	528
University of Pittsburgh	2,003	72	2	147	36	1,205	78	463
University of Scranton	116	1	0	5	2	92	12	4
Villanova University	477	8	4	26	5	296	40	98
West Chester University of Pennsylvania	231	5	0	12	1	200	0	13
Widener University	0	0	0	0	0	0	0	0
Wilkes University	4	0	0	0	0	3	0	1

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 4 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
East North Central	50,193	2,755	157	2,637	1,102	30,417	1,086	12,039
Illinois	17,534	1,400	41	1,314	494	10,105	527	3,653
Bradley University	122	1	1	17	0	13	25	65
Chicago School of Prof Psych	183	11	1	4	10	149	0	8
Chicago State University	308	259	1	5	10	26	0	7
DePaul University	1,743	151	2	298	80	1,102	38	72
Eastern Illinois University	127	0	0	0	0	0	112	15
Finch U of Hlth Sci/The Chicago Med Sch	277	5	0	71	9	169	1	22
Governors State University	455	144	0	9	14	262	16	10
Illinois Institute of Technology	1,271	158	0	191	38	597	21	266
Illinois State University	547	28	3	25	5	399	0	87
Loyola University of Chicago	831	44	2	59	24	513	13	176
Midwestern University	0	0	0	0	0	0	0	0
Northeastern Illinois University	355	11	0	47	14	267	3	13
Northern Illinois University	876	28	1	54	8	598	5	182
Northwestern University	882	40	3	60	18	489	13	259
Roosevelt University	604	112	1	17	22	353	64	35
Rush University	75	1	0	7	1	48	0	18
Southern Illinois Univ at Carbondale	997	44	3	20	40	682	2	206
Southern Illinois Univ at Edwardsville	407	38	3	8	1	303	0	54
Univ of Illinois at Urbana-Champaign	2,967	71	6	164	56	1,457	138	1,075
University of Chicago	1,941	52	7	136	64	1,095	2	585
University of Illinois at Chicago	1,319	106	4	70	52	626	46	415
University of Illinois at Springfield	841	82	2	48	22	687	0	0
Western Illinois University	406	14	1	4	6	270	28	83
Indiana	6,353	164	15	195	160	3,840	80	1,899
Ball State University	450	1	0	3	0	301	0	145
Butler University	3	0	0	0	0	3	0	0
Indiana State University	369	25	2	3	19	248	2	70
Indiana University	2,876	74	6	99	57	1,972	54	614
Indiana Wesleyan University	0	0	0	0	0	0	0	0
Purdue University	1,991	53	6	82	67	943	16	824
Rose-Hulman Institute of Technology	11	0	0	0	0	4	0	7
Saint Francis College	34	1	0	1	0	28	3	1
University of Evansville	0	0	0	0	0	0	0	0
University of Notre Dame	579	9	0	7	16	306	4	237
Valparaiso University	40	1	1	0	1	35	1	1
Michigan	9,255	607	38	477	199	5,302	138	2,494
Andrews University	111	10	1	2	7	48	0	43
Central Michigan University	425	10	4	68	6	297	7	33
Eastern Michigan University	601	18	0	62	6	297	24	194
Grand Valley State University	178	11	0	10	2	142	2	11
Michigan State University	2,379	106	9	67	50	1,306	20	821
Michigan Technological University	223	3	0	3	0	108	4	105
Northern Michigan University	82	1	4	1	0	74	2	0
Oakland University	199	14	1	7	2	142	2	31
University of Detroit Mercy	282	29	0	8	0	194	0	51
University of Michigan	2,284	171	10	146	96	1,323	15	523
Wayne State University	1,414	146	6	84	19	650	60	449
Western Michigan University	1,077	88	3	19	11	721	2	233
Ohio	11,660	499	33	501	126	7,560	182	2,759
Air Force Institute of Technology	273	0	0	8	0	106	0	159
Antioch University	1,253	39	5	19	30	1,129	3	28
Bowling Green State University	573	31	6	11	2	328	2	193
Case Western Reserve University	803	21	1	52	8	434	43	244
Cleveland State University	539	57	0	22	7	289	31	133
John Carroll University	70	2	0	3	0	64	0	1
Kent State University	824	37	4	17	7	532	11	216
Medical College of Ohio	112	0	0	43	0	54	0	15

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 5 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Ohio, continued:								
Miami University (OH)	423	10	1	14	8	311	3	76
Ohio State University	2,708	93	6	194	32	1,541	18	824
Ohio University	646	13	0	6	3	374	0	250
Union Institute	274	26	2	3	0	214	29	0
University of Akron	865	12	0	6	4	627	1	215
University of Cincinnati	913	57	2	37	9	603	20	185
University of Dayton	154	5	0	8	0	121	0	20
University of Toledo	419	26	1	26	3	257	3	103
Wright State University	597	49	5	29	11	395	18	90
Xavier University	85	11	0	1	2	71	0	0
Youngstown State University	129	10	0	2	0	110	0	7
Wisconsin	5,391	85	30	150	123	3,610	159	1,234
Marquette University	299	6	0	12	4	159	0	118
Medical College of Wisconsin	144	0	0	6	3	75	29	31
Milwaukee School of Engineering	0	0	0	0	0	0	0	0
University of Wisconsin-Eau Claire	18	0	0	0	0	18	0	0
University of Wisconsin-Green Bay	78	1	2	0	0	68	0	7
University of Wisconsin-La Crosse	62	0	1	4	0	53	3	1
University of Wisconsin-Madison	3,444	27	17	88	91	2,216	119	886
University of Wisconsin-Milwaukee	999	48	8	28	22	709	8	176
University of Wisconsin-Oshkosh	138	3	0	9	1	125	0	0
University of Wisconsin-Platteville	7	0	0	0	0	7	0	0
University of Wisconsin-River Falls	40	0	0	0	0	40	0	0
University of Wisconsin-Stevens Point	68	0	1	0	1	65	0	1
University of Wisconsin-Stout	78	0	1	3	1	61	0	12
University of Wisconsin-Whitewater	16	0	0	0	0	14	0	2
West North Central	21,074	607	104	686	385	12,860	1,827	4,605
Iowa	3,481	87	7	74	59	1,960	129	1,165
Drake University	262	22	0	9	11	220	0	0
Iowa State University	1,819	31	4	27	28	905	101	723
Loras College	12	0	0	0	0	12	0	0
Maharishi University of Management	48	0	0	0	0	8	23	17
Marycrest International Univ	27	0	0	0	1	13	2	11
Univ of Osteopathic Med & Health Sci	0	0	0	0	0	0	0	0
University of Iowa	1,158	23	2	34	16	673	2	408
University of Northern Iowa	155	11	1	4	3	129	1	6
Kansas	4,576	169	38	100	103	2,895	352	919
Emporia State University	208	2	2	3	4	170	11	16
Fort Hays State University	61	0	1	3	3	54	0	0
Kansas State University	1,347	36	5	42	15	835	3	411
Pittsburg State University	239	6	3	7	4	178	25	16
University of Kansas	2,215	106	25	36	62	1,356	310	320
Washburn University of Topeka	26	1	0	0	0	25	0	0
Wichita State University	480	18	2	9	15	277	3	156
Minnesota	5,309	102	24	152	68	2,835	1,230	898
Bemidji State University	14	0	0	0	0	12	0	2
Mankato State University	267	8	1	18	2	202	12	24
Mayo Graduate School	141	2	1	5	8	90	5	30
Moorhead State University	50	0	0	0	0	50	0	0
Saint Mary's University of Minnesota	1,086	0	0	0	0	0	1,086	0
St. Cloud State University	68	0	0	6	0	60	2	0
University of Minnesota	3,373	69	19	119	51	2,260	13	842
Walden University	310	23	3	4	7	161	112	0
Missouri	4,368	189	15	238	104	2,922	68	832
Central Missouri State University	258	18	0	6	6	228	0	0

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 6 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Missouri, continued:								
Forest Institute of Professional Psych	181	5	1	2	4	162	7	0
Kirksville College of Osteopathic Med	0	0	0	0	0	0	0	0
Lincoln University	14	6	0	0	0	8	0	0
Northwest Missouri State University	38	0	0	4	0	33	1	0
Saint Louis University	414	34	1	14	8	310	2	45
Southeast Missouri State University	43	2	0	1	0	39	0	1
Southwest Missouri State University	248	1	0	3	2	232	2	8
Truman State University	15	0	0	7	0	6	2	0
University of Missouri-Columbia	1,148	57	4	67	36	689	6	289
University of Missouri-Kansas City	467	14	4	12	11	276	2	148
University of Missouri-Rolla	238	3	2	6	1	114	6	106
University of Missouri-St. Louis	392	29	1	18	18	280	2	44
Washington University	912	20	2	98	18	545	38	191
Nebraska	2,014	52	6	71	43	1,318	25	499
Creighton University	93	2	0	11	2	56	0	22
University of Nebraska - Lincoln	1,270	25	4	48	31	764	6	392
University of Nebraska - Omaha	514	21	1	9	10	389	19	65
University of Nebraska Medical Center	86	4	1	3	0	58	0	20
University of Nebraska at Kearney	51	0	0	0	0	51	0	0
North Dakota	710	3	8	23	6	494	1	175
North Dakota State University	429	2	1	14	1	263	1	147
University of North Dakota	281	1	7	9	5	231	0	28
South Dakota	616	5	6	28	2	436	22	117
South Dakota School of Mines and Tech	70	0	0	0	0	49	0	21
South Dakota State University	337	3	3	12	1	252	4	62
University of South Dakota	209	2	3	16	1	135	18	34
South Atlantic	49,765	4,507	119	2,487	1,488	31,694	986	8,484
Delaware	1,037	53	3	51	25	630	20	255
Delaware State University	36	13	0	1	1	21	0	0
University of Delaware	1,001	40	3	50	24	609	20	255
District of Columbia	6,193	908	11	382	190	3,296	250	1,156
American University	1,951	219	3	85	88	1,126	77	353
Catholic University of America	389	12	1	38	12	256	9	61
Gallaudet University	0	0	0	0	0	0	0	0
George Washington University	2,398	106	6	154	73	1,512	139	408
Georgetown University	722	10	1	70	16	364	12	249
Howard University	630	484	0	35	1	19	13	78
University of the District of Columbia	103	77	0	0	0	19	0	7
Florida	10,055	678	29	376	810	6,465	202	1,495
Embry-Riddle Aeronautical University	50	1	0	0	1	27	1	20
Florida A&M University	179	112	0	9	2	24	30	2
Florida Atlantic University	601	48	2	38	47	388	0	78
Florida Institute of Technology	515	15	1	10	29	331	12	117
Florida International University	766	77	1	24	245	305	113	1
Florida State University	1,108	63	2	50	22	760	2	209
Jacksonville University	0	0	0	0	0	0	0	0
Nova Southeastern University	1,710	114	8	43	153	1,293	20	79
University of Central Florida	768	41	2	45	44	542	0	94
University of Florida	2,158	69	4	82	87	1,318	9	589
University of Miami	765	47	3	29	108	377	11	190
University of South Florida	1,072	57	3	39	65	796	4	108
University of West Florida	363	34	3	7	7	304	0	8
Georgia	5,745	767	13	243	91	3,534	105	992
Atlanta University	0	0	0	0	0	0	0	0

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 7 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Georgia, continued:								
Augusta State University	35	3	0	1	0	31	0	0
Clark Atlanta University	347	285	0	6	9	0	13	34
Emory University	711	45	1	39	13	471	0	142
Fort Valley State College	0	0	0	0	0	0	0	0
Georgia College and State University	258	43	3	3	4	193	0	12
Georgia Institute of Technology	874	67	3	32	16	532	0	224
Georgia Southern University	157	22	0	2	1	130	1	1
Georgia State University	1,032	166	0	91	17	604	48	106
Institute of Paper Science & Technology	0	0	0	0	0	0	0	0
Medical College of Georgia	101	8	0	4	2	49	2	36
Mercer University	31	0	0	0	0	0	29	2
Morehouse School of Medicine	16	12	0	0	2	1	1	0
State University of West Georgia	157	18	0	0	0	128	3	8
University of Georgia	1,796	51	2	65	21	1,228	8	421
Valdosta State University	230	47	4	0	6	167	0	6
Maryland	7,096	581	18	469	111	4,200	187	1,530
Coppin State College	47	45	0	0	0	2	0	0
Frostburg State University	73	0	0	1	2	70	0	0
Hood College	385	10	0	37	1	213	98	26
Johns Hopkins University	1,449	42	4	146	30	795	3	429
Loyola College	501	41	0	6	4	407	13	30
Morgan State University	73	49	0	2	1	10	11	0
Towson University	451	27	5	30	7	297	0	85
Uniformed Serv Univ of the Hlth Sciences	63	2	1	5	2	49	4	0
Univ of Maryland - Baltimore County	734	55	1	51	4	475	2	146
University of Baltimore	439	136	0	3	3	280	6	11
University of Maryland - College Park	2,409	122	7	118	50	1,334	36	742
University of Maryland Eastern Shore	113	38	0	30	2	39	4	0
University of Maryland at Baltimore	333	13	0	38	5	209	8	60
Washington College	26	1	0	2	0	20	2	1
North Carolina	7,658	777	17	335	95	5,360	65	1,009
Appalachian State University	211	5	0	0	4	198	0	4
Duke University	1,020	26	1	92	13	719	9	160
East Carolina University	331	15	1	2	4	276	7	26
North Carolina A&T State University	146	91	0	23	0	15	11	6
North Carolina Central University	378	320	2	7	1	47	1	0
North Carolina State University	2,130	86	4	65	24	1,551	5	395
Univ of North Carolina at Chapel Hill	2,104	132	5	91	36	1,528	12	300
Univ of North Carolina at Charlotte	517	53	1	24	3	345	0	91
Univ of North Carolina at Greensboro	295	32	1	7	5	234	2	14
University of North Carolina/Wilmington	148	1	1	11	1	134	0	0
Wake Forest University	268	11	1	13	4	217	9	13
Western Carolina University	110	5	0	0	0	96	9	0
South Carolina	2,510	106	3	33	39	1,737	21	571
Clemson University	972	23	1	5	7	649	17	270
College of Charleston	187	11	1	1	1	167	0	6
Furman University	9	0	0	2	0	7	0	0
Medical University of South Carolina	235	8	0	3	4	181	1	38
University of South Carolina	1,022	56	1	22	25	658	3	257
Winthrop University	85	8	0	0	2	75	0	0
Virginia	8,113	618	20	568	119	5,424	119	1,245
College of William and Mary	348	11	1	10	5	280	0	41
Eastern Virginia Medical School	139	20	0	10	0	88	1	20
George Mason University	2,318	115	3	279	43	1,486	0	392
Hampton University	76	51	1	11	0	5	7	1
Hollins College	5	0	0	0	0	5	0	0
Institute of Textile Technology	0	0	0	0	0	0	0	0

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 8 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Virginia, continued:								
James Madison University	166	8	1	7	3	131	0	16
Old Dominion University	895	110	3	23	13	551	30	165
Radford University	169	13	1	2	0	138	0	15
University of Richmond	12	0	0	1	0	11	0	0
University of Virginia	1,085	45	2	66	15	760	66	131
Virginia Commonwealth University	1,000	97	7	85	11	723	3	74
Virginia Polytechnic Inst and State Univ	1,823	84	1	74	29	1,233	12	390
Virginia State University	77	64	0	0	0	13	0	0
West Virginia	1,358	19	5	30	8	1,048	17	231
Marshall University	499	5	3	8	4	446	17	16
University of Charleston	0	0	0	0	0	0	0	0
West Virginia Graduate College	0	0	0	0	0	0	0	0
West Virginia University	859	14	2	22	4	602	0	215
West Virginia University Institute of Te	0	0	0	0	0	0	0	0
East South Central	13,364	1,528	39	351	153	8,805	103	2,385
Alabama	3,867	519	17	147	45	2,368	20	751
Alabama A&M University	250	142	0	6	0	19	0	83
Alabama State University	15	14	0	0	0	1	0	0
Auburn University	1,103	101	5	21	13	733	8	222
Jacksonville State University	228	53	2	3	8	145	1	16
Troy State University in Montgomery	51	10	0	4	1	36	0	0
Tuskegee University	65	45	0	3	0	1	8	8
University of Alabama at Birmingham, The	804	72	0	80	10	506	3	133
University of Alabama in Huntsville, The	287	13	3	14	4	190	0	63
University of Alabama, The	779	53	4	9	4	552	0	157
University of Montevallo	0	0	0	0	0	0	0	0
University of South Alabama	285	16	3	7	5	185	0	69
Kentucky	2,734	111	7	38	33	1,978	63	504
Eastern Kentucky University	235	14	0	0	0	199	0	22
Morehead State University	80	3	0	1	0	72	1	3
Murray State University	215	3	0	0	0	158	0	54
Spalding University	137	7	1	2	1	123	0	3
University of Kentucky	1,304	50	5	15	12	840	58	324
University of Louisville	543	23	1	10	19	405	2	83
Western Kentucky University	220	11	0	10	1	181	2	15
Mississippi	2,273	393	4	47	35	1,278	4	512
Jackson State University	324	232	1	23	1	21	0	46
Mississippi State University	833	54	1	16	26	497	1	238
Mississippi University for Women	0	0	0	0	0	0	0	0
University of Mississippi	534	67	2	6	1	286	3	169
University of Southern Mississippi	582	40	0	2	7	474	0	59
Tennessee	4,490	505	11	119	40	3,181	16	618
Austin Peay State University	62	3	0	2	3	53	0	1
East Tennessee State University	392	11	1	9	5	335	1	30
Fisk University	46	42	0	0	0	2	0	2
Memphis Medical College	131	112	0	5	0	8	5	1
Middle Tennessee State University	323	17	1	21	4	280	0	0
Tennessee State University	300	137	0	12	4	131	0	16
Tennessee Technological University	149	3	0	0	1	137	0	8
University of Memphis	663	64	1	8	3	470	9	108
University of Tennessee at Chattanooga	182	32	0	1	4	136	0	9
University of Tennessee at Knoxville	1,334	49	7	24	10	1,045	0	199
University of Tennessee, Memphis	113	4	0	7	1	50	0	51
Vanderbilt University	795	31	1	30	5	534	1	193
West South Central	28,211	1,693	215	1,503	1,537	16,523	438	6,302

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 9 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Arkansas	1,396	105	17	50	17	1,015	13	179
Arkansas State University	262	22	3	1	0	216	0	20
University of Arkansas - Med Sci Campus	131	6	4	5	0	85	0	31
University of Arkansas Main	605	15	7	30	12	432	12	97
University of Arkansas at Little Rock	230	50	1	10	5	133	1	30
University of Central Arkansas	168	12	2	4	0	149	0	1
Louisiana	4,297	625	13	128	71	2,362	69	1,029
Grambling State University	17	16	0	0	0	0	0	1
Louisiana State University	2,406	207	10	65	55	1,417	51	601
Louisiana Tech University	112	2	0	0	0	45	0	65
Loyola University New Orleans	0	0	0	0	0	0	0	0
McNeese State University	103	12	1	4	0	86	0	0
Nicholls State University	44	2	1	2	2	37	0	0
Northeast Louisiana University	181	27	0	2	0	130	0	22
Northwestern State University	39	5	0	0	1	33	0	0
Southeastern Louisiana University	48	2	0	0	2	44	0	0
Southern University A & M, All Campuses	424	323	0	28	1	54	13	5
Tulane University	570	21	0	20	9	358	5	157
University of Southwestern Louisiana	353	8	1	7	1	158	0	178
Xavier University of Louisiana	0	0	0	0	0	0	0	0
Oklahoma	2,707	74	98	109	45	1,678	52	651
East Central University	30	2	3	0	0	25	0	0
Northeastern State University	86	2	0	0	0	78	0	6
Oklahoma State University	1,205	36	45	30	24	694	1	375
Oral Roberts University	0	0	0	0	0	0	0	0
Southwestern Oklahoma State University	29	1	1	0	0	25	0	2
University of Oklahoma	1,177	31	42	75	18	736	44	231
University of Tulsa	180	2	7	4	3	120	7	37
Texas	19,811	889	87	1,216	1,404	11,468	304	4,443
Abilene Christian University	119	4	1	0	5	89	12	8
Angelo State University	127	2	0	3	14	106	0	2
Baylor College of Dentistry	7	0	0	0	1	3	0	3
Baylor College of Medicine	302	3	0	14	10	178	0	97
Baylor University	298	5	2	20	17	206	7	41
Lamar University	187	6	0	2	2	85	1	91
Midwestern State University	159	6	0	1	3	84	38	27
Prairie View A&M University	100	74	0	7	1	4	0	14
Rice University	511	17	5	10	22	304	2	151
Sam Houston State University	315	21	4	2	12	227	0	49
Southern Methodist University	506	21	3	43	13	320	0	106
Southwest Texas State University	624	21	1	18	77	433	0	74
St. Mary's University	186	10	0	5	43	115	3	10
Stephen F. Austin State University	271	7	1	4	5	235	0	19
Sul Ross State University	64	1	1	0	11	46	4	1
Tarleton State University	60	0	1	0	3	56	0	0
Texas A&M University	3,131	47	6	165	146	1,956	31	780
Texas A&M University-Commerce	278	5	0	2	0	184	0	87
Texas A&M University-Corpus Christi	228	3	2	10	43	158	0	12
Texas A&M University-Kingsville	338	4	1	3	145	140	0	45
Texas Christian University	136	1	0	3	7	97	2	26
Texas Southern University	358	211	0	6	8	49	13	71
Texas Tech University	901	8	0	22	35	573	23	240
Texas Woman's University	526	33	5	31	30	405	22	0
Trinity University	14	1	0	0	9	4	0	0
U of North TX Hlth Sci Ctr at Ft Worth	0	0	0	0	0	0	0	0
Univ of Texas Hlth Sci Ctr San Antonio	189	6	0	8	18	99	3	55
Univ of Texas Hlth Sci Ctr at Houston	584	19	2	58	40	307	2	156
Univ of Texas M.D. Anderson Cancer Ctr	0	0	0	0	0	0	0	0
Univ of Texas Med Branch at Galveston	160	4	0	10	10	75	0	61
Univ of Texas SW Medical Ctr at Dallas	328	5	1	26	13	192	6	85

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 10 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Texas, continued:								
University of Central Texas	240	58	5	8	23	126	9	11
University of Houston	1,158	36	7	337	46	494	5	233
University of Houston - Victoria	41	2	0	0	5	34	0	0
University of Houston Clear Lake	879	93	4	70	77	508	0	127
University of Incarnate Word	97	9	0	2	28	56	2	0
University of North Texas	1,276	36	15	38	58	815	44	270
University of Texas at Arlington	876	38	5	51	29	463	0	290
University of Texas at Austin	2,133	28	4	66	104	1,293	17	621
University of Texas at Dallas	914	24	4	126	16	344	3	397
University of Texas at El Paso	343	8	2	7	119	114	0	93
University of Texas at San Antonio	367	5	1	30	90	187	54	0
University of Texas at Tyler	212	3	1	6	3	132	0	67
University of Texas of the Permian Basin	39	1	0	0	3	34	0	1
University of Texas-Pan American	87	2	0	1	56	21	0	7
West Texas A&M University	142	1	3	1	4	117	1	15
Mountain	19,720	262	195	629	790	13,827	811	3,206
Arizona	4,687	77	61	149	235	3,107	66	992
Arizona State University	1,931	42	13	53	91	1,237	54	441
Northern Arizona University	517	9	29	8	46	401	0	24
University of Arizona	2,239	26	19	88	98	1,469	12	527
Colorado	5,868	110	40	228	202	4,321	142	825
Colorado School of Mines	484	5	3	5	6	295	30	140
Colorado State University	1,370	15	9	26	33	1,060	17	210
National Technological University	118	3	0	16	4	82	5	8
University of Colorado	3,006	69	24	138	121	2,236	85	333
University of Denver	709	18	4	37	27	491	5	127
University of Northern Colorado	181	0	0	6	11	157	0	7
Idaho	1,084	3	6	11	10	897	6	151
Idaho State University	239	1	1	2	3	219	0	13
University of Idaho	845	2	5	9	7	678	6	138
Montana	1,001	2	19	21	7	851	13	88
Montana State University-Bozeman	429	1	4	10	1	348	10	55
Montana Tech of the Univ of Montana	20	0	1	2	0	17	0	0
University of Montana	552	1	14	9	6	486	3	33
Nevada	1,182	26	17	43	55	831	58	152
University of Nevada at Las Vegas	384	22	1	11	26	276	16	32
University of Nevada, Reno	798	4	16	32	29	555	42	120
New Mexico	2,360	29	30	35	234	1,166	462	404
Eastern New Mexico University	80	1	1	1	3	63	0	11
New Mexico Highlands University	69	4	2	2	15	33	2	11
New Mexico Institute of Mining and Tech	165	0	0	0	3	116	0	46
New Mexico State University	831	12	8	8	96	69	448	190
University of New Mexico	1,215	12	19	24	117	885	12	146
Utah	2,817	12	16	120	38	2,050	61	520
Brigham Young University	872	0	1	48	10	674	36	103
University of Utah	1,111	6	6	62	17	777	20	223
Utah State University	834	6	9	10	11	599	5	194
Wyoming	721	3	6	22	9	604	3	74
University of Wyoming	721	3	6	22	9	604	3	74
Pacific	48,309	1,883	365	4,952	2,835	27,317	3,257	7,700

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 11 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Alaska	621	6	19	10	2	506	7	71
University of Alaska Anchorage	98	2	4	3	1	88	0	0
University of Alaska Fairbanks	500	4	15	7	1	395	7	71
University of Alaska Southeast	23	0	0	0	0	23	0	0
California	38,833	1,776	276	4,224	2,632	21,239	2,839	5,847
Azusa Pacific University	387	30	1	61	23	220	2	50
Biola University	167	5	1	17	3	124	0	17
Cal Schl of Prof Psych Berkeley/Alameda	286	18	4	26	21	192	16	9
Calif Poly State Univ, San Luis Obispo	274	3	0	1	3	222	1	44
Calif Sch of Prof Psych - Fresno	339	19	8	20	18	244	29	1
Calif Sch of Prof Psych - Los Angeles	725	67	11	77	72	417	70	11
Calif Sch of Prof Psych - San Diego	642	19	13	32	33	486	45	14
Calif State Univ at Dominguez Hills	415	184	4	23	65	111	24	4
Calif State Univ at Fullerton	779	21	6	99	73	376	73	131
Calif State Univ at Los Angeles	606	67	4	101	179	148	65	42
Calif State University at Sacramento	692	28	1	78	28	396	90	71
Calif State University, Stanislaus	144	5	1	5	11	110	11	1
California Institute of Integral Studies	381	6	1	6	8	333	13	14
California Institute of Technology	647	11	0	54	18	389	0	175
California State Poly University, Pomona	325	10	1	48	36	147	37	46
California State Univ - Bakersfield	39	2	3	1	6	25	2	0
California State Univ, San Bernadino	331	34	4	11	46	168	41	27
California State University, Chico	355	6	5	12	23	231	42	36
California State University, Fresno	509	13	2	54	95	230	65	50
California State University, Hayward	765	91	7	113	66	304	125	59
California State University, Long Beach	966	53	5	169	95	408	118	118
California State University, Northridge	519	14	3	63	61	249	82	47
Chapman University	387	18	3	15	24	289	35	3
Charles R. Drew Univ of Medicine & Sci	0	0	0	0	0	0	0	0
Clairemont Graduate School	712	36	2	76	55	336	54	153
Dominican College of San Rafael	133	4	0	1	7	83	8	30
Fielding Institute, The	948	62	7	23	33	814	9	0
Fuller Theological Seminary	396	13	1	71	16	273	7	15
Golden Gate University	488	48	1	62	26	212	40	99
Harvey Mudd College	0	0	0	0	0	0	0	0
Humboldt State University	275	1	9	8	22	198	34	3
John F Kennedy University	668	37	8	35	22	523	43	0
Loma Linda University	418	22	1	50	44	183	16	102
Loyola Marymount University	139	5	0	23	13	76	19	3
National University	916	105	5	67	105	581	20	33
Northrop University	0	0	0	0	0	0	0	0
Occidental College	3	0	0	0	1	2	0	0
Pacific Graduate School of Psychology	299	4	1	11	22	247	0	14
Pacific States University	6	0	0	6	0	0	0	0
Pepperdine University	739	43	8	58	63	390	158	19
RAND Graduate School of Policy Studies	49	0	0	4	3	42	0	0
San Diego State University	1,013	43	17	128	115	533	102	75
San Francisco State University	828	44	15	121	72	400	107	69
San Jose State University	755	22	3	142	44	316	99	129
Santa Clara University	533	6	3	103	10	140	58	213
Sonoma State University	95	1	2	2	6	69	15	0
Stanford University	1,986	40	12	247	68	988	48	583
US International University	409	33	6	23	31	265	51	0
US Naval Postgraduate School	458	3	0	21	0	222	1	211
University of Calif at Berkeley	2,788	79	16	295	124	1,716	108	450
University of Calif at Davis	1,951	25	19	160	86	1,116	209	336
University of Calif at Riverside	785	12	0	72	53	403	92	153
University of Calif at San Diego	1,419	24	5	158	69	847	100	216
University of Calif at San Francisco	297	4	0	50	17	198	9	19
University of Calif at Santa Barbara	1,036	17	3	72	56	669	73	146
University of Calif at Santa Cruz	653	23	4	60	45	367	77	77
University of California, Irvine	1,003	10	3	169	58	517	89	157
University of California, Los Angeles	2,674	99	23	433	156	1,253	142	568

See explanatory information, if any, and SOURCE at end of table.

Table 30. Graduate science students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 12 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
California, continued:								
University of La Verne	204	37	5	32	22	106	2	0
University of Redlands	0	0	0	0	0	0	0	0
University of San Diego	51	1	0	5	5	32	1	7
University of San Francisco	114	3	2	12	1	32	17	47
University of Southern California	2,617	122	5	310	131	1,066	45	938
University of the Pacific	50	1	0	5	3	29	0	12
West Coast University	0	0	0	0	0	0	0	0
Whittier College	0	0	0	0	0	0	0	0
Wright Institute, The	245	23	2	23	21	176	0	0
Hawaii	1,397	4	2	331	13	599	28	420
University of Hawaii at Manoa	1,397	4	2	331	13	599	28	420
Oregon	2,971	31	22	101	59	1,873	210	675
Oregon Grad Inst of Science & Technology	174	0	0	2	3	90	0	79
Oregon Health Sciences University	123	1	1	8	3	82	3	25
Oregon State University	1,197	8	7	47	19	700	94	322
Pacific University	0	0	0	0	0	0	0	0
Portland State University	757	11	7	25	18	519	74	103
Southern Oregon State College	45	0	0	0	2	37	3	3
University of Oregon	675	11	7	19	14	445	36	143
University of Portland	0	0	0	0	0	0	0	0
Washington	4,487	66	46	286	129	3,100	173	687
Central Washington University	96	0	8	1	4	80	0	3
Eastern Washington University	254	2	0	6	2	241	1	2
Gonzaga University	0	0	0	0	0	0	0	0
Pacific Lutheran University	65	6	2	2	0	40	15	0
Saint Martin's College	0	0	0	0	0	0	0	0
Seattle University	143	4	2	11	3	95	19	9
University of Washington	2,742	40	22	225	71	1,832	100	452
Walla Walla College	12	0	0	0	0	12	0	0
Washington State University	981	12	9	36	43	655	14	212
Western Washington University	194	2	3	5	6	145	24	9
Whitworth College	0	0	0	0	0	0	0	0
Outlying Areas	2,040	3	6	41	1,637	183	2	168
Guam	67	0	6	36	7	16	0	2
University of Guam	67	0	6	36	7	16	0	2
Puerto Rico	1,973	3	0	5	1,630	167	2	166
Caribbean Center for Advanced Studies	319	0	0	0	319	0	0	0
Ponce School of Medicine	17	0	0	0	17	0	0	0
The Pontifical Cath Univ of Puerto Rico	11	0	0	0	11	0	0	0
Univ of Puerto Rico Mayaguez Campus	444	1	0	0	349	13	0	81
Univ of Puerto Rico Rio Piedras Campus	1,086	2	0	0	848	154	2	80
University of Puerto Rico Med Sci Campus	96	0	0	5	86	0	0	5

NOTES: Includes medical schools

For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 1 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Total, all institutions	101,008	2,874	238	8,154	2,811	46,017	4,492	36,422
New England	7,566	119	7	467	108	3,550	809	2,506
Connecticut	946	19	0	62	9	484	63	309
Central Connecticut State University	0	0	0	0	0	0	0	0
Connecticut College	0	0	0	0	0	0	0	0
Quinnipiac College	0	0	0	0	0	0	0	0
Rensselaer at Hartford	185	8	0	8	3	118	39	9
Southern Connecticut State University	0	0	0	0	0	0	0	0
St. Joseph College	0	0	0	0	0	0	0	0
Trinity College	0	0	0	0	0	0	0	0
University of Bridgeport	101	2	0	2	0	25	0	72
University of Connecticut	427	9	0	38	5	220	5	150
University of Hartford	44	0	0	9	1	24	10	0
University of New Haven	104	0	0	3	0	79	0	22
Wesleyan University	0	0	0	0	0	0	0	0
Western Connecticut State University	0	0	0	0	0	0	0	0
Yale University	85	0	0	2	0	18	9	56
Maine	138	1	0	3	0	92	0	42
University of Maine	138	1	0	3	0	92	0	42
University of New England	0	0	0	0	0	0	0	0
Massachusetts	5,857	95	6	355	97	2,570	739	1,995
American International College	0	0	0	0	0	0	0	0
Anna Maria College	0	0	0	0	0	0	0	0
Assumption College	0	0	0	0	0	0	0	0
Boston College	0	0	0	0	0	0	0	0
Boston University	369	4	0	11	2	67	132	153
Brandeis University	0	0	0	0	0	0	0	0
Bridgewater State College	0	0	0	0	0	0	0	0
Clark University	0	0	0	0	0	0	0	0
Emerson College	0	0	0	0	0	0	0	0
Framingham State College	0	0	0	0	0	0	0	0
Harvard University	167	3	0	20	1	64	14	65
MGH Institute of Health Professions	0	0	0	0	0	0	0	0
Mass College of Pharmacy/Allied Health	0	0	0	0	0	0	0	0
Massachusetts Institute of Technology	2,240	49	2	236	63	1,086	2	802
Mount Holyoke College	0	0	0	0	0	0	0	0
Northeastern University	953	7	1	8	2	144	430	361
Salem State College	0	0	0	0	0	0	0	0
Smith College	0	0	0	0	0	0	0	0
Tufts University	376	9	0	6	7	259	5	90
University of Massachusetts	458	3	0	4	8	133	62	248
University of Massachusetts Dartmouth	81	1	0	2	0	32	2	44
University of Massachusetts Lowell	764	15	2	46	2	472	91	136
Western New England College	62	0	0	1	1	60	0	0
Williams College	0	0	0	0	0	0	0	0
Woods Hole Oceanographic Institution	27	0	0	1	1	19	0	6
Worcester Polytechnic Institute	360	4	1	20	10	234	1	90
Worcester State College	0	0	0	0	0	0	0	0
New Hampshire	224	0	0	7	2	154	7	54
Dartmouth College	62	0	0	1	0	35	0	26
Rivier College	0	0	0	0	0	0	0	0
University of New Hampshire	162	0	0	6	2	119	7	28
Rhode Island	310	3	1	38	0	172	0	96
Brown University	90	3	1	1	0	39	0	46
Rhode Island College	0	0	0	0	0	0	0	0
University of Rhode Island	220	0	0	37	0	133	0	50
Vermont	91	1	0	2	0	78	0	10
Goddard College	0	0	0	0	0	0	0	0

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 2 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Vermont, continued:								
Marlboro College	0	0	0	0	0	0	0	0
Middlebury College	0	0	0	0	0	0	0	0
University of Vermont	91	1	0	2	0	78	0	10
Middle Atlantic	14,886	499	18	1,074	336	6,234	1,161	5,564
New Jersey	3,000	129	4	261	104	1,226	246	1,030
College of New Jersey, The	0	0	0	0	0	0	0	0
Drew University	0	0	0	0	0	0	0	0
Fairleigh Dickinson University	19	1	0	1	1	3	0	13
Kean College of New Jersey	0	0	0	0	0	0	0	0
Monmouth University	149	8	0	21	6	70	31	13
Montclair State University	0	0	0	0	0	0	0	0
New Jersey Institute of Technology	938	46	3	71	61	263	122	372
Princeton University	341	1	1	12	3	148	2	174
Rutgers the State Univ of New Jersey	666	22	0	73	11	261	24	275
Seton Hall University	0	0	0	0	0	0	0	0
Stevens Institute of Technology	887	51	0	83	22	481	67	183
Univ of Med and Dentistry of New Jersey	0	0	0	0	0	0	0	0
William Paterson U of NJ	0	0	0	0	0	0	0	0
New York	6,923	241	7	526	173	2,576	698	2,702
Adelphi University	0	0	0	0	0	0	0	0
Albany Medical College	0	0	0	0	0	0	0	0
Alfred University	71	0	0	1	0	37	0	33
CUNY Bernard Baruch College	0	0	0	0	0	0	0	0
CUNY Brooklyn College	0	0	0	0	0	0	0	0
CUNY City College	182	36	0	33	15	34	17	47
CUNY College of Staten Island	0	0	0	0	0	0	0	0
CUNY Graduate School and Univ Center	123	16	0	7	6	15	0	79
CUNY Herbert H. Lehman College	0	0	0	0	0	0	0	0
CUNY Hunter College	0	0	0	0	0	0	0	0
CUNY John Jay College of Crim Justice	0	0	0	0	0	0	0	0
CUNY Mt. Sinai School of Medicine	0	0	0	0	0	0	0	0
CUNY Queens College	0	0	0	0	0	0	0	0
Clarkson University	155	3	3	1	1	57	0	90
College of New Rochelle	0	0	0	0	0	0	0	0
College of St Rose	0	0	0	0	0	0	0	0
Columbia Univ in the City of New York	669	6	0	100	12	178	80	293
Cooper Union	30	1	0	8	2	17	0	2
Cornell University	693	10	2	71	23	270	0	317
Fordham University	0	0	0	0	0	0	0	0
Hofstra University	0	0	0	0	0	0	0	0
Iona College	0	0	0	0	0	0	0	0
Ithaca College	0	0	0	0	0	0	0	0
Long Island University	22	2	0	2	0	17	0	1
Manhattan College	183	3	0	15	13	132	4	16
Marist College	0	0	0	0	0	0	0	0
New School for Social Research	0	0	0	0	0	0	0	0
New York Institute of Technology	325	55	0	24	19	189	0	38
New York Medical College	0	0	0	0	0	0	0	0
New York University	0	0	0	0	0	0	0	0
Niagara University	0	0	0	0	0	0	0	0
Pace University	0	0	0	0	0	0	0	0
Polytechnic University	858	30	0	97	22	163	293	253
Pratt Institute	0	0	0	0	0	0	0	0
Rensselaer Polytechnic Institute	1,187	16	1	48	30	527	121	444
Rochester Institute of Technology	209	12	0	17	11	128	9	32
Russell Sage College	0	0	0	0	0	0	0	0
SUNY Health Science Center at Syracuse	0	0	0	0	0	0	0	0
SUNY College at Brockport	0	0	0	0	0	0	0	0
SUNY College at Buffalo	0	0	0	0	0	0	0	0
SUNY College at Cortland	0	0	0	0	0	0	0	0

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 3 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
New York, continued:								
SUNY College at Fredonia	0	0	0	0	0	0	0	0
SUNY College at Geneseo	0	0	0	0	0	0	0	0
SUNY College at Oneonta	0	0	0	0	0	0	0	0
SUNY College at Oswego	0	0	0	0	0	0	0	0
SUNY College at Plattsburgh	0	0	0	0	0	0	0	0
SUNY College at Potsdam	0	0	0	0	0	0	0	0
SUNY College of Env Science and Forestry	95	0	0	0	0	52	0	43
SUNY College of Optometry	0	0	0	0	0	0	0	0
SUNY Health Science Center at Brooklyn	0	0	0	0	0	0	0	0
SUNY Inst of Technology at Utica-Rome	0	0	0	0	0	0	0	0
SUNY at Albany	0	0	0	0	0	0	0	0
SUNY at Binghamton	236	13	0	16	4	126	0	77
SUNY at Buffalo	834	13	0	42	6	341	111	321
SUNY at New Paltz	2	0	0	0	0	1	0	1
SUNY at Stony Brook	301	11	0	22	5	105	0	158
Saint John's University	0	0	0	0	0	0	0	0
Sarah Lawrence College	0	0	0	0	0	0	0	0
St. Bonaventure University	0	0	0	0	0	0	0	0
Syracuse University	544	9	0	16	2	102	62	353
Teachers College, Columbia University	0	0	0	0	0	0	0	0
The Rockefeller University	0	0	0	0	0	0	0	0
Union College	16	0	0	0	1	14	0	1
University of Rochester	188	5	1	6	1	71	1	103
Vassar College	0	0	0	0	0	0	0	0
Wagner College	0	0	0	0	0	0	0	0
Yeshiva University	0	0	0	0	0	0	0	0
Pennsylvania	4,963	129	7	287	59	2,432	217	1,832
Allegheny Univ. of the Health Sciences	0	0	0	0	0	0	0	0
Bloomsburg University of Pennsylvania	0	0	0	0	0	0	0	0
Bryn Mawr College	0	0	0	0	0	0	0	0
Bucknell University	21	0	0	0	0	9	0	12
California University of Pennsylvania	0	0	0	0	0	0	0	0
Carnegie Mellon University	622	12	0	37	10	241	7	315
Clarion University of Pennsylvania	0	0	0	0	0	0	0	0
Drexel University	641	25	2	26	6	282	91	209
Duquesne University	0	0	0	0	0	0	0	0
East Stroudsburg Univ of Pennsylvania	0	0	0	0	0	0	0	0
Edinboro University of Pennsylvania	0	0	0	0	0	0	0	0
Gannon University	51	1	0	1	0	38	11	0
Indiana University of Pennsylvania	0	0	0	0	0	0	0	0
Kutztown University of Pennsylvania	0	0	0	0	0	0	0	0
Lehigh University	560	15	0	24	5	269	7	240
Mansfield University of Pennsylvania	0	0	0	0	0	0	0	0
Marywood College	0	0	0	0	0	0	0	0
Medical College of Pennsylvania, The	0	0	0	0	0	0	0	0
Millersville University of Pennsylvania	0	0	0	0	0	0	0	0
Pennsylvania State University	1,539	31	5	84	20	763	17	619
Philadelphia Col of Osteopathic Med	0	0	0	0	0	0	0	0
Philadelphia Coll of Pharmacy and Sci	0	0	0	0	0	0	0	0
Shippensburg University of Pennsylvania	0	0	0	0	0	0	0	0
Slippery Rock University of Pennsylvania	0	0	0	0	0	0	0	0
St Joseph's University	0	0	0	0	0	0	0	0
Swarthmore College	0	0	0	0	0	0	0	0
Temple University	97	4	0	7	1	61	1	23
Thomas Jefferson University	0	0	0	0	0	0	0	0
University of Pennsylvania	368	10	0	67	8	166	28	89
University of Pittsburgh	690	24	0	23	3	389	0	251
University of Scranton	0	0	0	0	0	0	0	0
Villanova University	250	3	0	9	3	135	55	45
West Chester University of Pennsylvania	0	0	0	0	0	0	0	0
Widener University	106	4	0	9	3	70	0	20
Wilkes University	18	0	0	0	0	9	0	9

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 4 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
East North Central	19,204	422	33	1,322	309	9,108	399	7,611
Illinois	4,396	115	7	438	103	1,888	67	1,778
Bradley University	207	2	0	34	0	76	28	67
Chicago School of Prof Psych	0	0	0	0	0	0	0	0
Chicago State University	0	0	0	0	0	0	0	0
DePaul University	0	0	0	0	0	0	0	0
Eastern Illinois University	0	0	0	0	0	0	0	0
Finch U of Hlth Sci/The Chicago Med Sch	0	0	0	0	0	0	0	0
Governors State University	0	0	0	0	0	0	0	0
Illinois Institute of Technology	787	28	3	99	28	333	1	295
Illinois State University	0	0	0	0	0	0	0	0
Loyola University of Chicago	0	0	0	0	0	0	0	0
Midwestern University	0	0	0	0	0	0	0	0
Northeastern Illinois University	0	0	0	0	0	0	0	0
Northern Illinois University	158	1	0	14	1	78	1	63
Northwestern University	634	23	2	47	13	304	7	238
Roosevelt University	24	4	0	2	0	13	0	5
Rush University	0	0	0	0	0	0	0	0
Southern Illinois Univ at Carbondale	157	12	0	2	1	52	0	90
Southern Illinois Univ at Edwardsville	109	6	0	5	0	52	0	46
Univ of Illinois at Urbana-Champaign	1,422	18	1	101	39	690	5	568
University of Chicago	0	0	0	0	0	0	0	0
University of Illinois at Chicago	898	21	1	134	21	290	25	406
University of Illinois at Springfield	0	0	0	0	0	0	0	0
Western Illinois University	0	0	0	0	0	0	0	0
Indiana	1,990	40	1	106	42	898	7	896
Ball State University	32	0	0	2	1	25	0	4
Butler University	0	0	0	0	0	0	0	0
Indiana State University	0	0	0	0	0	0	0	0
Indiana University	87	5	0	21	0	59	0	2
Indiana Wesleyan University	0	0	0	0	0	0	0	0
Purdue University	1,445	28	1	77	34	601	6	698
Rose-Hulman Institute of Technology	159	0	0	0	0	108	0	51
Saint Francis College	0	0	0	0	0	0	0	0
University of Evansville	0	0	0	0	0	0	0	0
University of Notre Dame	267	7	0	6	7	105	1	141
Valparaiso University	0	0	0	0	0	0	0	0
Michigan	5,309	144	6	480	67	2,851	145	1,616
Andrews University	0	0	0	0	0	0	0	0
Central Michigan University	0	0	0	0	0	0	0	0
Eastern Michigan University	0	0	0	0	0	0	0	0
Grand Valley State University	0	0	0	0	0	0	0	0
Michigan State University	483	17	0	27	8	181	22	228
Michigan Technological University	320	2	2	3	3	152	4	154
Northern Michigan University	0	0	0	0	0	0	0	0
Oakland University	642	15	0	33	4	434	18	138
University of Detroit Mercy	172	5	0	4	2	105	0	56
University of Michigan	2,381	61	1	177	42	1,340	25	735
Wayne State University	971	39	1	229	5	427	76	194
Western Michigan University	340	5	2	7	3	212	0	111
Ohio	5,261	93	16	196	50	2,160	146	2,600
Air Force Institute of Technology	231	1	0	2	3	117	19	89
Antioch University	67	1	0	2	0	49	0	15
Bowling Green State University	0	0	0	0	0	0	0	0
Case Western Reserve University	630	14	2	87	2	285	13	227
Cleveland State University	235	6	3	6	9	104	26	81
John Carroll University	0	0	0	0	0	0	0	0
Kent State University	0	0	0	0	0	0	0	0
Medical College of Ohio	0	0	0	0	0	0	0	0

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 5 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Ohio, continued:								
Miami University (OH)	11	0	0	0	0	7	0	4
Ohio State University	1,056	17	0	18	17	396	1	607
Ohio University	294	2	0	2	0	65	0	225
Union Institute	0	0	0	0	0	0	0	0
University of Akron	496	1	0	13	2	274	1	205
University of Cincinnati	1,032	25	0	34	5	335	22	611
University of Dayton	397	18	6	21	6	232	61	53
University of Toledo	506	0	2	0	3	130	1	370
Wright State University	254	8	3	11	3	128	2	99
Xavier University	0	0	0	0	0	0	0	0
Youngstown State University	52	0	0	0	0	38	0	14
Wisconsin	2,248	30	3	102	47	1,311	34	721
Marquette University	327	1	1	38	6	192	0	89
Medical College of Wisconsin	0	0	0	0	0	0	0	0
Milwaukee School of Engineering	486	12	2	10	6	447	0	9
University of Wisconsin-Eau Claire	0	0	0	0	0	0	0	0
University of Wisconsin-Green Bay	0	0	0	0	0	0	0	0
University of Wisconsin-La Crosse	0	0	0	0	0	0	0	0
University of Wisconsin-Madison	1,063	10	0	36	28	439	33	517
University of Wisconsin-Milwaukee	328	6	0	17	7	204	1	93
University of Wisconsin-Oshkosh	0	0	0	0	0	0	0	0
University of Wisconsin-Platteville	14	0	0	0	0	14	0	0
University of Wisconsin-River Falls	0	0	0	0	0	0	0	0
University of Wisconsin-Stevens Point	0	0	0	0	0	0	0	0
University of Wisconsin-Stout	30	1	0	1	0	15	0	13
University of Wisconsin-Whitewater	0	0	0	0	0	0	0	0
West North Central	5,613	67	5	273	48	2,526	123	2,571
Iowa	1,136	19	1	22	12	444	22	616
Drake University	0	0	0	0	0	0	0	0
Iowa State University	789	15	0	11	8	271	22	462
Loras College	0	0	0	0	0	0	0	0
Maharishi University of Management	0	0	0	0	0	0	0	0
Marycrest International Univ	0	0	0	0	0	0	0	0
Univ of Osteopathic Med & Health Sci	0	0	0	0	0	0	0	0
University of Iowa	347	4	1	11	4	173	0	154
University of Northern Iowa	0	0	0	0	0	0	0	0
Kansas	1,220	12	1	46	12	504	42	603
Emporia State University	0	0	0	0	0	0	0	0
Fort Hays State University	0	0	0	0	0	0	0	0
Kansas State University	332	3	0	15	5	155	0	154
Pittsburg State University	0	0	0	0	0	0	0	0
University of Kansas	503	8	1	17	4	264	42	167
Washburn University of Topeka	0	0	0	0	0	0	0	0
Wichita State University	385	1	0	14	3	85	0	282
Minnesota	1,126	8	0	61	7	568	9	473
Bemidji State University	0	0	0	0	0	0	0	0
Mankato State University	12	0	0	1	0	4	1	6
Mayo Graduate School	0	0	0	0	0	0	0	0
Moorhead State University	0	0	0	0	0	0	0	0
Saint Mary's University of Minnesota	0	0	0	0	0	0	0	0
St. Cloud State University	0	0	0	0	0	0	0	0
University of Minnesota	1,114	8	0	60	7	564	8	467
Walden University	0	0	0	0	0	0	0	0
Missouri	1,392	20	2	71	14	617	36	632
Central Missouri State University	31	1	0	10	1	17	1	1

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 6 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Missouri, continued:								
Forest Institute of Professional Psych	0	0	0	0	0	0	0	0
Kirksville College of Osteopathic Med	0	0	0	0	0	0	0	0
Lincoln University	0	0	0	0	0	0	0	0
Northwest Missouri State University	0	0	0	0	0	0	0	0
Saint Louis University	16	0	0	1	0	5	0	10
Southeast Missouri State University	0	0	0	0	0	0	0	0
Southwest Missouri State University	9	0	0	0	0	6	0	3
Truman State University	0	0	0	0	0	0	0	0
University of Missouri-Columbia	404	8	1	27	1	104	3	260
University of Missouri-Kansas City	0	0	0	0	0	0	0	0
University of Missouri-Rolla	648	9	1	15	11	343	28	241
University of Missouri-St. Louis	0	0	0	0	0	0	0	0
Washington University	284	2	0	18	1	142	4	117
Nebraska	354	6	1	45	3	201	1	97
Creighton University	0	0	0	0	0	0	0	0
University of Nebraska - Lincoln	354	6	1	45	3	201	1	97
University of Nebraska - Omaha	0	0	0	0	0	0	0	0
University of Nebraska Medical Center	0	0	0	0	0	0	0	0
University of Nebraska at Kearney	0	0	0	0	0	0	0	0
North Dakota	150	2	0	19	0	89	6	34
North Dakota State University	107	1	0	6	0	64	6	30
University of North Dakota	43	1	0	13	0	25	0	4
South Dakota	235	0	0	9	0	103	7	116
South Dakota School of Mines and Tech	113	0	0	0	0	34	7	72
South Dakota State University	122	0	0	9	0	69	0	44
University of South Dakota	0	0	0	0	0	0	0	0
South Atlantic	17,968	1,001	44	1,139	612	8,910	379	5,883
Delaware	376	4	0	12	6	154	5	195
Delaware State University	0	0	0	0	0	0	0	0
University of Delaware	376	4	0	12	6	154	5	195
District of Columbia	1,650	139	4	134	40	672	88	573
American University	0	0	0	0	0	0	0	0
Catholic University of America	129	15	0	7	4	59	1	43
Gallaudet University	0	0	0	0	0	0	0	0
George Washington University	1,453	84	4	126	36	607	87	509
Georgetown University	0	0	0	0	0	0	0	0
Howard University	68	40	0	1	0	6	0	21
University of the District of Columbia	0	0	0	0	0	0	0	0
Florida	3,923	175	13	217	360	1,790	124	1,244
Embry-Riddle Aeronautical University	32	0	0	0	0	17	0	15
Florida A&M University	64	35	0	6	7	7	9	0
Florida Atlantic University	256	8	1	26	21	89	0	111
Florida Institute of Technology	228	6	0	11	14	118	6	73
Florida International University	275	19	0	17	104	48	87	0
Florida State University	198	31	0	14	12	73	8	60
Jacksonville University	0	0	0	0	0	0	0	0
Nova Southeastern University	0	0	0	0	0	0	0	0
University of Central Florida	742	23	1	46	56	395	0	221
University of Florida	1,253	27	8	49	66	640	3	460
University of Miami	247	11	1	8	31	98	11	87
University of South Florida	628	15	2	40	49	305	0	217
University of West Florida	0	0	0	0	0	0	0	0
Georgia	2,764	164	2	157	62	1,440	52	887
Atlanta University	0	0	0	0	0	0	0	0

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 7 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Georgia, continued:								
Augusta State University	0	0	0	0	0	0	0	0
Clark Atlanta University	0	0	0	0	0	0	0	0
Emory University	0	0	0	0	0	0	0	0
Fort Valley State College	0	0	0	0	0	0	0	0
Georgia College and State University	0	0	0	0	0	0	0	0
Georgia Institute of Technology	2,538	163	2	152	61	1,289	0	871
Georgia Southern University	0	0	0	0	0	0	0	0
Georgia State University	0	0	0	0	0	0	0	0
Institute of Paper Science & Technology	68	1	0	5	0	58	0	4
Medical College of Georgia	0	0	0	0	0	0	0	0
Mercer University	136	0	0	0	0	84	52	0
Morehouse School of Medicine	0	0	0	0	0	0	0	0
State University of West Georgia	0	0	0	0	0	0	0	0
University of Georgia	22	0	0	0	1	9	0	12
Valdosta State University	0	0	0	0	0	0	0	0
Maryland	2,105	131	6	158	41	901	58	810
Coppin State College	0	0	0	0	0	0	0	0
Frostburg State University	0	0	0	0	0	0	0	0
Hood College	0	0	0	0	0	0	0	0
Johns Hopkins University	285	8	0	14	1	124	19	119
Loyola College	198	19	0	9	5	148	13	4
Morgan State University	16	11	0	0	0	3	0	2
Towson University	0	0	0	0	0	0	0	0
Uniformed Serv Univ of the Hlth Sciences	0	0	0	0	0	0	0	0
Univ of Maryland - Baltimore County	135	4	0	16	1	43	0	71
University of Baltimore	0	0	0	0	0	0	0	0
University of Maryland - College Park	1,471	89	6	119	34	583	26	614
University of Maryland Eastern Shore	0	0	0	0	0	0	0	0
University of Maryland at Baltimore	0	0	0	0	0	0	0	0
Washington College	0	0	0	0	0	0	0	0
North Carolina	2,215	213	5	127	18	1,105	8	739
Appalachian State University	0	0	0	0	0	0	0	0
Duke University	317	3	0	10	1	169	0	134
East Carolina University	0	0	0	0	0	0	0	0
North Carolina A&T State University	240	139	0	18	1	21	7	54
North Carolina Central University	0	0	0	0	0	0	0	0
North Carolina State University	1,423	60	4	81	14	784	1	479
Univ of North Carolina at Chapel Hill	71	4	0	5	2	48	0	12
Univ of North Carolina at Charlotte	157	6	1	13	0	78	0	59
Univ of North Carolina at Greensboro	0	0	0	0	0	0	0	0
University of North Carolina/Wilmington	0	0	0	0	0	0	0	0
Wake Forest University	7	1	0	0	0	5	0	1
Western Carolina University	0	0	0	0	0	0	0	0
South Carolina	1,052	21	0	90	7	535	26	373
Clemson University	624	11	0	6	5	317	10	275
College of Charleston	0	0	0	0	0	0	0	0
Furman University	0	0	0	0	0	0	0	0
Medical University of South Carolina	0	0	0	0	0	0	0	0
University of South Carolina	428	10	0	84	2	218	16	98
Winthrop University	0	0	0	0	0	0	0	0
Virginia	3,267	142	13	213	68	1,961	18	852
College of William and Mary	46	2	0	6	3	22	0	13
Eastern Virginia Medical School	0	0	0	0	0	0	0	0
George Mason University	612	43	4	93	17	393	0	62
Hampton University	0	0	0	0	0	0	0	0
Hollins College	0	0	0	0	0	0	0	0
Institute of Textile Technology	28	3	0	0	0	25	0	0

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 8 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Virginia, continued:								
James Madison University	0	0	0	0	0	0	0	0
Old Dominion University	379	17	4	9	9	211	11	118
Radford University	0	0	0	0	0	0	0	0
University of Richmond	0	0	0	0	0	0	0	0
University of Virginia	584	31	0	26	7	402	7	111
Virginia Commonwealth University	22	1	0	0	0	8	0	13
Virginia Polytechnic Inst and State Univ	1,596	45	5	79	32	900	0	535
Virginia State University	0	0	0	0	0	0	0	0
West Virginia	616	12	1	31	10	352	0	210
Marshall University	45	0	0	1	0	44	0	0
University of Charleston	0	0	0	0	0	0	0	0
West Virginia Graduate College	0	0	0	0	0	0	0	0
West Virginia University	555	12	1	16	10	306	0	210
West Virginia University Institute of Te	16	0	0	14	0	2	0	0
East South Central	4,308	235	11	255	47	2,433	65	1,262
Alabama	1,421	114	3	99	15	811	20	359
Alabama A&M University	0	0	0	0	0	0	0	0
Alabama State University	0	0	0	0	0	0	0	0
Auburn University	426	19	0	5	4	233	3	162
Jacksonville State University	0	0	0	0	0	0	0	0
Troy State University in Montgomery	0	0	0	0	0	0	0	0
Tuskegee University	47	34	0	4	0	0	9	0
University of Alabama at Birmingham, The	224	29	0	24	4	147	2	18
University of Alabama in Huntsville, The	410	22	3	24	6	293	0	62
University of Alabama, The	261	9	0	40	1	123	6	82
University of Montevallo	0	0	0	0	0	0	0	0
University of South Alabama	53	1	0	2	0	15	0	35
Kentucky	773	25	2	33	10	429	14	260
Eastern Kentucky University	0	0	0	0	0	0	0	0
Morehead State University	0	0	0	0	0	0	0	0
Murray State University	0	0	0	0	0	0	0	0
Spalding University	0	0	0	0	0	0	0	0
University of Kentucky	353	2	0	7	1	148	14	181
University of Louisville	420	23	2	26	9	281	0	79
Western Kentucky University	0	0	0	0	0	0	0	0
Mississippi	413	14	0	24	6	210	7	152
Jackson State University	0	0	0	0	0	0	0	0
Mississippi State University	316	13	0	13	5	174	0	111
Mississippi University for Women	0	0	0	0	0	0	0	0
University of Mississippi	97	1	0	11	1	36	7	41
University of Southern Mississippi	0	0	0	0	0	0	0	0
Tennessee	1,701	82	6	99	16	983	24	491
Austin Peay State University	0	0	0	0	0	0	0	0
East Tennessee State University	0	0	0	0	0	0	0	0
Fisk University	0	0	0	0	0	0	0	0
Memphis Medical College	0	0	0	0	0	0	0	0
Middle Tennessee State University	0	0	0	0	0	0	0	0
Tennessee State University	82	20	0	0	0	17	0	45
Tennessee Technological University	159	3	0	0	1	71	0	84
University of Memphis	374	14	1	50	7	208	19	75
University of Tennessee at Chattanooga	104	6	0	6	2	67	0	23
University of Tennessee at Knoxville	603	18	3	19	2	446	0	115
University of Tennessee, Memphis	45	2	0	1	1	20	0	21
Vanderbilt University	334	19	2	23	3	154	5	128
West South Central	9,546	203	31	768	431	3,960	412	3,741

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 9 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Arkansas	457	15	1	27	9	270	6	129
Arkansas State University	0	0	0	0	0	0	0	0
University of Arkansas - Med Sci Campus	0	0	0	0	0	0	0	0
University of Arkansas Main	457	15	1	27	9	270	6	129
University of Arkansas at Little Rock	0	0	0	0	0	0	0	0
University of Central Arkansas	0	0	0	0	0	0	0	0
Louisiana	1,065	29	2	38	21	403	10	562
Grambling State University	0	0	0	0	0	0	0	0
Louisiana State University	597	15	2	26	15	188	10	341
Louisiana Tech University	215	1	0	3	1	88	0	122
Loyola University New Orleans	0	0	0	0	0	0	0	0
McNeese State University	12	1	0	2	0	9	0	0
Nicholls State University	0	0	0	0	0	0	0	0
Northeast Louisiana University	0	0	0	0	0	0	0	0
Northwestern State University	0	0	0	0	0	0	0	0
Southeastern Louisiana University	0	0	0	0	0	0	0	0
Southern University A & M, All Campuses	0	0	0	0	0	0	0	0
Tulane University	156	10	0	4	5	80	0	57
University of Southwestern Louisiana	85	2	0	3	0	38	0	42
Xavier University of Louisiana	0	0	0	0	0	0	0	0
Oklahoma	1,056	16	11	38	9	386	9	587
East Central University	0	0	0	0	0	0	0	0
Northeastern State University	53	0	0	0	0	43	0	10
Oklahoma State University	513	6	6	21	4	199	6	271
Oral Roberts University	0	0	0	0	0	0	0	0
Southwestern Oklahoma State University	0	0	0	0	0	0	0	0
University of Oklahoma	370	10	5	13	5	121	1	215
University of Tulsa	120	0	0	4	0	23	2	91
Texas	6,968	143	17	665	392	2,901	387	2,463
Abilene Christian University	0	0	0	0	0	0	0	0
Angelo State University	0	0	0	0	0	0	0	0
Baylor College of Dentistry	0	0	0	0	0	0	0	0
Baylor College of Medicine	0	0	0	0	0	0	0	0
Baylor University	0	0	0	0	0	0	0	0
Lamar University	107	1	1	10	1	20	0	74
Midwestern State University	0	0	0	0	0	0	0	0
Prairie View A&M University	14	5	0	1	1	0	0	7
Rice University	226	4	2	22	3	83	1	111
Sam Houston State University	0	0	0	0	0	0	0	0
Southern Methodist University	754	39	2	99	45	481	0	88
Southwest Texas State University	0	0	0	0	0	0	0	0
St. Mary's University	77	0	0	0	7	59	0	11
Stephen F. Austin State University	0	0	0	0	0	0	0	0
Sul Ross State University	0	0	0	0	0	0	0	0
Tarleton State University	0	0	0	0	0	0	0	0
Texas A&M University	1,489	38	1	47	56	546	350	451
Texas A&M University-Commerce	0	0	0	0	0	0	0	0
Texas A&M University-Corpus Christi	0	0	0	0	0	0	0	0
Texas A&M University-Kingsville	146	0	0	1	32	25	0	88
Texas Christian University	0	0	0	0	0	0	0	0
Texas Southern University	0	0	0	0	0	0	0	0
Texas Tech University	393	1	1	7	10	163	7	204
Texas Woman's University	0	0	0	0	0	0	0	0
Trinity University	0	0	0	0	0	0	0	0
U of North TX Hlth Sci Ctr at Ft Worth	0	0	0	0	0	0	0	0
Univ of Texas Hlth Sci Ctr San Antonio	0	0	0	0	0	0	0	0
Univ of Texas Hlth Sci Ctr at Houston	0	0	0	0	0	0	0	0
Univ of Texas M.D. Anderson Cancer Ctr	0	0	0	0	0	0	0	0
Univ of Texas Med Branch at Galveston	0	0	0	0	0	0	0	0
Univ of Texas SW Medical Ctr at Dallas	24	1	0	3	0	11	0	9

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 10 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Texas, continued:								
University of Central Texas	0	0	0	0	0	0	0	0
University of Houston	700	15	0	216	27	266	4	172
University of Houston - Victoria	0	0	0	0	0	0	0	0
University of Houston Clear Lake	104	5	1	12	6	66	0	14
University of Incarnate Word	0	0	0	0	0	0	0	0
University of North Texas	21	0	1	0	2	11	1	6
University of Texas at Arlington	587	10	3	72	18	243	0	241
University of Texas at Austin	1,731	18	3	118	60	731	0	801
University of Texas at Dallas	220	3	0	40	7	83	0	87
University of Texas at El Paso	236	0	1	7	93	38	0	97
University of Texas at San Antonio	116	3	1	10	22	56	24	0
University of Texas at Tyler	3	0	0	0	0	3	0	0
University of Texas of the Permian Basin	0	0	0	0	0	0	0	0
University of Texas-Pan American	0	0	0	0	0	0	0	0
West Texas A&M University	20	0	0	0	2	16	0	2
Mountain	6,943	65	29	333	224	3,788	322	2,182
Arizona	1,781	22	5	89	51	769	62	783
Arizona State University	1,169	14	2	54	35	479	55	530
Northern Arizona University	0	0	0	0	0	0	0	0
University of Arizona	612	8	3	35	16	290	7	253
Colorado	2,443	32	7	148	69	1,524	68	595
Colorado School of Mines	281	1	1	12	6	147	9	105
Colorado State University	400	4	1	9	8	227	0	151
National Technological University	588	16	3	68	19	394	26	62
University of Colorado	1,156	11	2	59	36	746	33	269
University of Denver	18	0	0	0	0	10	0	8
University of Northern Colorado	0	0	0	0	0	0	0	0
Idaho	342	2	0	8	8	264	1	59
Idaho State University	38	1	0	1	3	26	0	7
University of Idaho	304	1	0	7	5	238	1	52
Montana	167	0	2	0	2	133	2	28
Montana State University-Bozeman	122	0	2	0	2	91	0	27
Montana Tech of the Univ of Montana	45	0	0	0	0	42	2	1
University of Montana	0	0	0	0	0	0	0	0
Nevada	284	3	2	23	3	144	23	86
University of Nevada at Las Vegas	126	3	0	17	1	69	16	20
University of Nevada, Reno	158	0	2	6	2	75	7	66
New Mexico	710	6	10	21	76	234	130	233
Eastern New Mexico University	0	0	0	0	0	0	0	0
New Mexico Highlands University	0	0	0	0	0	0	0	0
New Mexico Institute of Mining and Tech	59	0	0	0	1	20	3	35
New Mexico State University	259	3	3	3	30	1	126	93
University of New Mexico	392	3	7	18	45	213	1	105
Utah	1,091	0	2	32	12	651	25	369
Brigham Young University	307	0	0	18	7	249	3	30
University of Utah	475	0	1	13	5	244	22	190
Utah State University	309	0	1	1	0	158	0	149
Wyoming	125	0	1	12	3	69	11	29
University of Wyoming	125	0	1	12	3	69	11	29
Pacific	14,691	263	60	2,523	528	5,459	822	5,036

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 11 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Alaska	128	1	3	7	0	88	5	24
University of Alaska Anchorage	57	0	3	3	0	49	2	0
University of Alaska Fairbanks	71	1	0	4	0	39	3	24
University of Alaska Southeast	0	0	0	0	0	0	0	0
California	12,174	232	47	2,187	501	4,270	711	4,226
Azusa Pacific University	0	0	0	0	0	0	0	0
Biola University	0	0	0	0	0	0	0	0
Cal Schl of Prof Psych Berkeley/Alameda	0	0	0	0	0	0	0	0
Calif Poly State Univ, San Luis Obispo	87	0	0	1	0	57	0	29
Calif Sch of Prof Psych - Fresno	0	0	0	0	0	0	0	0
Calif Sch of Prof Psych - Los Angeles	0	0	0	0	0	0	0	0
Calif Sch of Prof Psych - San Diego	0	0	0	0	0	0	0	0
Calif State Univ at Dominguez Hills	31	3	1	5	4	7	3	8
Calif State Univ at Fullerton	155	1	0	34	5	43	10	62
Calif State Univ at Los Angeles	107	2	0	41	17	15	5	27
Calif State University at Sacramento	236	4	3	52	30	80	25	42
Calif State University, Stanislaus	0	0	0	0	0	0	0	0
California Institute of Integral Studies	0	0	0	0	0	0	0	0
California Institute of Technology	384	2	0	25	12	160	0	185
California State Poly University, Pomona	239	6	1	82	16	73	27	34
California State Univ - Bakersfield	0	0	0	0	0	0	0	0
California State Univ, San Bernadino	0	0	0	0	0	0	0	0
California State University, Chico	9	0	0	1	0	3	1	4
California State University, Fresno	11	0	0	2	0	5	4	0
California State University, Hayward	0	0	0	0	0	0	0	0
California State University, Long Beach	351	6	2	96	28	125	36	58
California State University, Northridge	361	13	3	83	30	154	64	14
Chapman University	0	0	0	0	0	0	0	0
Charles R. Drew Univ of Medicine & Sci	0	0	0	0	0	0	0	0
Claremont Graduate School	0	0	0	0	0	0	0	0
Dominican College of San Rafael	0	0	0	0	0	0	0	0
Fielding Institute, The	0	0	0	0	0	0	0	0
Fuller Theological Seminary	0	0	0	0	0	0	0	0
Golden Gate University	0	0	0	0	0	0	0	0
Harvey Mudd College	5	0	0	3	0	2	0	0
Humboldt State University	34	1	1	2	1	21	6	2
John F Kennedy University	0	0	0	0	0	0	0	0
Loma Linda University	0	0	0	0	0	0	0	0
Loyola Marymount University	73	3	3	15	9	29	11	3
National University	99	5	0	23	6	49	3	13
Northrop University	0	0	0	0	0	0	0	0
Occidental College	0	0	0	0	0	0	0	0
Pacific Graduate School of Psychology	0	0	0	0	0	0	0	0
Pacific States University	0	0	0	0	0	0	0	0
Pepperdine University	0	0	0	0	0	0	0	0
RAND Graduate School of Policy Studies	0	0	0	0	0	0	0	0
San Diego State University	233	7	1	41	24	85	48	27
San Francisco State University	36	0	1	8	6	8	6	7
San Jose State University	820	16	0	299	27	165	66	247
Santa Clara University	423	7	0	128	13	135	50	90
Sonoma State University	0	0	0	0	0	0	0	0
Stanford University	2,336	55	5	330	94	861	109	882
US International University	0	0	0	0	0	0	0	0
US Naval Postgraduate School	414	2	0	20	2	184	0	206
University of Calif at Berkeley	1,557	45	8	228	57	662	55	502
University of Calif at Davis	578	4	13	77	20	274	47	143
University of Calif at Riverside	0	0	0	0	0	0	0	0
University of Calif at San Diego	427	6	1	63	14	201	30	112
University of Calif at San Francisco	33	2	0	9	2	20	0	0
University of Calif at Santa Barbara	376	4	1	28	7	169	18	149
University of Calif at Santa Cruz	73	0	0	11	3	24	6	29
University of California, Irvine	306	2	0	87	8	86	27	96
University of California, Los Angeles	738	13	3	181	30	196	37	278

See explanatory information, if any, and SOURCE at end of table.

Table 31. Graduate engineering students in all institutions, by geographic division, State, institution, and citizenship, and by racial/ethnic background of U.S. citizens: 1997

Page 12 of 12

Division, State, and institution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
California, continued:								
University of La Verne	0	0	0	0	0	0	0	0
University of Redlands	0	0	0	0	0	0	0	0
University of San Diego	0	0	0	0	0	0	0	0
University of San Francisco	0	0	0	0	0	0	0	0
University of Southern California	1,642	23	0	212	36	377	17	977
University of the Pacific	0	0	0	0	0	0	0	0
West Coast University	0	0	0	0	0	0	0	0
Whittier College	0	0	0	0	0	0	0	0
Wright Institute, The	0	0	0	0	0	0	0	0
Hawaii	201	1	0	59	2	27	1	111
University of Hawaii at Manoa	201	1	0	59	2	27	1	111
Oregon	834	3	3	168	8	351	52	249
Oregon Grad Inst of Science & Technology	127	2	0	78	1	42	4	0
Oregon Health Sciences University	0	0	0	0	0	0	0	0
Oregon State University	454	0	2	78	5	191	36	142
Pacific University	0	0	0	0	0	0	0	0
Portland State University	244	1	1	12	2	117	12	99
Southern Oregon State College	0	0	0	0	0	0	0	0
University of Oregon	0	0	0	0	0	0	0	0
University of Portland	9	0	0	0	0	1	0	8
Washington	1,354	26	7	102	17	723	53	426
Central Washington University	0	0	0	0	0	0	0	0
Eastern Washington University	0	0	0	0	0	0	0	0
Gonzaga University	10	0	0	4	0	5	0	1
Pacific Lutheran University	0	0	0	0	0	0	0	0
Saint Martin's College	25	0	0	1	0	24	0	0
Seattle University	80	9	1	6	0	45	10	9
University of Washington	992	16	6	84	15	521	40	310
Walla Walla College	0	0	0	0	0	0	0	0
Washington State University	247	1	0	7	2	128	3	106
Western Washington University	0	0	0	0	0	0	0	0
Whitworth College	0	0	0	0	0	0	0	0
Outlying Areas	283	0	0	0	168	49	0	66
Guam	0	0	0	0	0	0	0	0
University of Guam	0	0	0	0	0	0	0	0
Puerto Rico	283	0	0	0	168	49	0	66
Caribbean Center for Advanced Studies	0	0	0	0	0	0	0	0
Ponce School of Medicine	0	0	0	0	0	0	0	0
The Pontifical Cath Univ of Puerto Rico	0	0	0	0	0	0	0	0
Univ of Puerto Rico Mayaguez Campus	283	0	0	0	168	49	0	66
Univ of Puerto Rico Rio Piedras Campus	0	0	0	0	0	0	0	0
University of Puerto Rico Med Sci Campus	0	0	0	0	0	0	0	0

NOTES: Includes medical schools

For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 32. Graduate students in science, engineering, and health fields in doctorate-granting institutions,
by detailed field: 1990-97**

Page 1 of 2

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	400,371	415,509	434,505	442,512	442,915	437,217	431,694	424,650
Total, science and engineering fields	352,804	365,499	380,923	384,986	381,554	372,994	366,805	359,476
Sciences, total	252,754	260,087	271,434	276,248	276,078	273,077	270,360	264,995
Physical sciences, total	32,539	33,007	33,691	33,583	32,768	31,791	30,832	29,652
Astronomy	810	829	869	880	973	912	874	778
Chemistry	18,140	18,384	18,916	19,072	18,760	18,540	18,321	17,774
Physics	13,380	13,600	13,692	13,423	12,752	12,073	11,404	10,901
Physical sciences, n.e.c.	209	194	214	208	283	266	233	199
Earth, atmos., & ocean sci., total	12,898	13,209	13,855	14,134	14,327	14,144	13,682	12,986
Atmospheric sciences	925	956	1,076	1,095	1,090	1,062	1,079	1,081
Geosciences	7,260	7,131	7,305	7,360	7,299	7,156	6,875	6,543
Oceanography	2,216	2,274	2,402	2,473	2,678	2,549	2,462	2,313
Earth, atmos., & ocean sci., n.e.c.	2,497	2,848	3,072	3,206	3,260	3,377	3,266	3,049
Mathematical sciences, total	17,586	17,910	18,242	17,763	17,440	16,408	15,995	14,863
Mathematics & applied mathematics	14,955	15,212	15,356	14,786	14,402	13,380	13,003	12,232
Statistics	2,631	2,698	2,886	2,977	3,038	3,028	2,992	2,631
Computer sciences	28,237	28,423	29,900	30,220	28,866	28,270	29,111	30,106
Agricultural sciences	10,662	10,847	11,183	11,252	11,474	11,593	11,229	11,078
Biological sciences, total	46,577	48,284	50,375	52,275	53,833	54,109	53,680	52,870
Anatomy	1,000	1,051	1,030	1,027	1,079	1,056	1,111	1,094
Biochemistry	5,005	5,160	5,333	5,455	5,567	5,493	5,203	5,040
Biology	10,363	10,628	11,068	11,308	11,188	11,004	11,312	11,502
Biometry/epidemiology	1,871	2,031	2,365	2,658	2,710	2,812	3,001	2,900
Biophysics	642	697	751	780	794	845	833	748
Botany	2,712	2,673	2,665	2,705	2,741	2,605	2,501	2,396
Cell biology	2,555	2,809	3,093	3,362	3,753	3,874	3,870	3,807
Ecology	1,042	1,079	1,155	1,251	1,420	1,508	1,497	1,511
Entomology/parasitology	1,173	1,171	1,193	1,247	1,263	1,241	1,234	1,161
Genetics	1,364	1,478	1,599	1,733	1,649	1,651	1,679	1,713
Microbio., immunology, & virology	4,830	4,890	4,932	5,037	5,114	5,045	4,937	4,829
Nutrition	3,959	3,936	3,866	4,034	4,244	4,449	4,365	4,224
Pathology	1,287	1,378	1,379	1,485	1,603	1,575	1,583	1,621
Pharmacology	2,353	2,432	2,529	2,643	2,830	2,700	2,652	2,582
Physiology	2,236	2,332	2,317	2,372	2,378	2,540	2,377	2,298
Zoology	2,091	2,168	2,117	2,115	2,085	2,063	1,907	1,723
Biosciences, n.e.c.	2,094	2,371	2,983	3,063	3,415	3,648	3,618	3,721
Psychology, total	36,022	37,915	39,312	39,539	39,688	39,071	38,721	39,110
Psychology, general	14,310	13,537	13,474	12,957	12,688	12,143	11,333	11,773
Clinical psychology	8,694	9,512	10,473	10,774	10,774	10,842	11,116	11,304
Psychology, n.e.c.	13,018	14,866	15,365	15,808	16,226	16,086	16,272	16,033
Social sciences, total	68,233	70,492	74,876	77,482	77,682	77,691	77,110	74,330
Agricultural economics	2,232	2,311	2,454	2,334	2,222	2,292	2,085	2,015
Anthropology (cultural & social)	6,249	6,480	6,862	7,114	7,414	7,419	7,491	7,236
Economics (except agricultural)	11,630	11,946	12,400	12,415	12,197	11,933	11,369	10,479
Geography	2,990	3,203	3,504	3,751	3,863	3,834	3,827	3,760
History and philosophy of science	331	337	360	369	387	401	409	443
Linguistics	3,114	3,135	2,930	2,947	2,937	2,857	2,848	2,733
Political science	25,315	26,280	28,197	29,390	28,596	28,304	27,482	25,983
Sociology	7,062	7,489	8,003	8,347	8,359	8,385	8,249	8,180
Sociology/anthropology	1,077	824	902	841	877	840	850	874
Social sciences, n.e.c.	8,233	8,487	9,264	9,974	10,830	11,426	12,500	12,627
Engineering, total	100,050	105,412	109,489	108,738	105,476	99,917	96,445	94,481
Aerospace engineering	3,843	4,053	3,999	3,905	3,653	3,287	3,140	3,029
Agricultural engineering	946	983	1,008	1,018	1,061	1,037	1,012	941
Biomedical engineering	2,073	2,191	2,485	2,613	2,674	2,662	2,685	2,785
Chemical engineering	6,621	7,002	7,259	7,396	7,502	7,310	7,258	7,125
Civil engineering	14,520	16,122	18,035	18,015	18,407	17,795	17,231	15,904
Electrical engineering	30,736	32,035	33,115	32,281	30,264	28,013	27,156	28,093
Engineering science	2,002	2,124	2,185	2,148	2,069	1,945	1,741	1,636
Industrial/manufacturing eng.	10,125	11,520	12,371	12,467	12,575	11,981	11,350	10,657
Mechanical engineering	15,762	16,638	17,538	17,461	16,886	15,625	14,753	14,278
Metallurgical/materials eng.	4,836	5,035	5,353	5,216	5,071	4,821	4,643	4,572
Mining engineering	409	475	426	411	399	362	351	333
Nuclear engineering	1,278	1,282	1,286	1,306	1,246	1,154	980	868
Petroleum engineering	662	699	729	717	612	594	551	561
Engineering, n.e.c.	6,237	5,253	3,700	3,784	3,057	3,331	3,594	3,699

See explanatory information, if any, and SOURCE at end of table.

**Table 32. Graduate students in science, engineering, and health fields in doctorate-granting institutions,
by detailed field: 1990-97**

Page 2 of 2

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, health fields	47,567	50,010	53,582	57,526	61,361	64,223	64,889	65,174
Medical fields, total	10,598	11,218	11,978	13,349	14,182	14,725	14,587	14,268
Anesthesiology	329	443	511	494	516	529	647	616
Cardiology	0	2	8	11	14	19	18	48
Oncology/cancer research	113	156	197	209	208	189	185	198
Endocrinology	74	66	71	63	63	53	46	43
Gastroenterology	1	0	0	1	0	0	0	3
Hematology	4	4	5	3	2	1	3	3
Neurology	844	1,003	1,149	1,311	1,455	1,554	1,632	1,696
Obstetrics and gynecology	5	10	3	3	4	6	4	18
Ophthalmology	37	32	27	19	32	30	33	33
Otorhinolaryngology	4	3	0	1	2	0	0	2
Pediatrics	140	153	154	196	261	238	275	434
Preventive medicine/community health	8,031	8,183	8,533	9,595	10,078	10,575	10,205	9,518
Psychiatry	71	46	96	103	144	158	131	156
Pulmonary disease	0	0	0	0	0	0	0	0
Radiology	196	233	252	287	320	268	227	221
Surgery	65	69	76	82	119	174	167	244
Clinical medicine, n.e.c.	684	815	896	971	964	931	1,014	1,035
Other health fields, total	36,969	38,792	41,604	44,177	47,179	49,498	50,302	50,906
Dental sciences	956	1,016	1,121	1,135	1,199	1,251	1,291	1,434
Nursing	18,633	18,949	19,938	20,801	22,688	23,564	22,314	21,583
Pharmaceutical sciences	2,887	2,967	2,788	2,851	2,890	2,926	2,947	3,035
Speech pathology/audiology	6,386	6,722	7,503	7,992	8,418	8,669	9,173	9,435
Veterinary sciences	881	875	923	853	858	915	932	1,160
Health related, n.e.c.	7,226	8,263	9,331	10,545	11,126	12,173	13,645	14,259

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 33. Graduate students in science, engineering, and health fields in public doctorate-granting institutions, by detailed field: 1990-97

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	279,405	290,245	303,624	308,672	309,147	304,963	300,476	294,958
Total, science and engineering fields	243,607	252,721	263,476	266,534	264,258	258,509	252,969	247,633
Sciences, total	173,374	177,994	185,424	188,686	188,705	186,720	183,893	180,131
Physical sciences, total	23,389	23,716	24,260	24,262	23,666	23,104	22,319	21,464
Astronomy	536	546	561	579	591	556	525	471
Chemistry	13,008	13,132	13,589	13,758	13,560	13,503	13,298	12,974
Physics	9,657	9,844	9,896	9,717	9,249	8,798	8,269	7,825
Physical sciences, n.e.c.	188	194	214	208	266	247	227	194
Earth, atmos., & ocean sci., total	10,596	10,769	11,322	11,562	11,610	11,717	11,396	10,873
Atmospheric sciences	897	936	1,051	1,077	1,071	1,037	1,059	1,057
Geosciences	5,869	5,771	5,917	5,959	5,885	5,827	5,615	5,348
Oceanography	1,802	1,841	1,948	1,996	2,119	2,109	2,048	1,922
Earth, atmos., & ocean sci., n.e.c.	2,028	2,221	2,406	2,530	2,535	2,744	2,674	2,546
Mathematical sciences	13,523	13,729	13,946	13,576	13,224	12,327	12,030	11,135
Computer sciences	16,501	16,847	17,490	17,708	17,149	17,118	17,278	18,355
Agricultural sciences	10,219	10,370	10,731	10,815	11,036	11,184	10,825	10,703
Biological sciences, total	33,986	35,116	36,667	37,955	39,005	38,747	38,331	37,549
Anatomy	715	765	742	760	805	779	793	778
Biochemistry	3,454	3,537	3,648	3,670	3,873	3,856	3,693	3,580
Biology	7,016	7,362	7,696	7,931	7,871	7,559	7,832	7,908
Biometry/epidemiology	1,082	1,225	1,562	1,728	1,732	1,724	1,777	1,734
Biophysics	356	387	417	426	415	472	459	419
Botany	2,545	2,505	2,539	2,566	2,621	2,466	2,364	2,253
Cell biology	1,442	1,587	1,824	2,077	2,270	2,342	2,371	2,333
Ecology	986	991	1,066	1,162	1,314	1,406	1,399	1,421
Entomology/parasitology	1,105	1,102	1,127	1,186	1,193	1,179	1,171	1,101
Genetics	998	1,058	1,133	1,147	1,083	1,077	1,119	1,144
Microbio., immunology, & virology	3,621	3,555	3,545	3,577	3,611	3,548	3,446	3,362
Nutrition	3,362	3,339	3,250	3,301	3,464	3,596	3,518	3,399
Pathology	900	987	982	982	1,046	1,023	1,026	1,010
Pharmacology	1,634	1,672	1,757	1,871	1,979	1,872	1,797	1,750
Physiology	1,498	1,530	1,526	1,559	1,521	1,548	1,439	1,373
Zoology	1,957	2,017	1,979	1,976	1,951	1,914	1,780	1,598
Biosciences, n.e.c.	1,315	1,497	1,874	2,036	2,256	2,386	2,347	2,386
Psychology	19,178	19,486	20,310	20,085	20,101	20,076	19,401	19,969
Social sciences, total	45,982	47,961	50,698	52,723	52,914	52,447	52,313	50,083
Agricultural economics	2,117	2,196	2,336	2,222	2,107	2,159	1,999	1,945
Anthropology (cultural & social)	4,507	4,714	4,944	5,210	5,395	5,328	5,396	5,170
Economics (except agricultural)	7,349	7,695	7,992	8,100	7,998	7,723	7,347	6,715
Geography	2,803	3,004	3,201	3,425	3,529	3,540	3,509	3,467
Linguistics	2,104	2,092	2,095	2,112	2,077	2,046	1,973	1,893
Political science	15,620	16,311	17,270	17,898	17,135	16,794	16,191	15,125
Sociology	5,226	5,650	5,923	6,171	6,174	6,180	6,136	6,049
Sociology/anthropology	769	543	622	652	694	652	669	709
Social sciences, other	5,487	5,756	6,315	6,933	7,805	8,025	9,093	9,010
Engineering, total	70,233	74,727	78,052	77,848	75,553	71,789	69,076	67,502
Aerospace engineering	2,957	3,213	3,173	3,102	2,872	2,549	2,399	2,310
Agricultural engineering	898	943	967	970	1,006	981	959	893
Biomedical engineering	1,237	1,282	1,497	1,601	1,601	1,620	1,671	1,824
Chemical engineering	4,761	5,082	5,322	5,446	5,523	5,361	5,269	5,101
Civil engineering	11,029	12,205	13,651	13,612	13,746	13,419	13,073	12,172
Electrical engineering	19,688	20,877	21,904	21,556	20,559	19,265	18,244	18,886
Engineering science	1,214	1,357	1,456	1,419	1,359	1,287	1,246	1,117
Industrial/manufacturing eng.	6,780	7,939	8,685	8,841	8,814	8,198	7,766	7,239
Mechanical engineering	11,303	12,200	13,054	12,930	12,505	11,695	11,151	10,713
Metallurgical/materials eng.	3,113	3,378	3,672	3,646	3,596	3,395	3,266	3,215
Nuclear engineering	1,073	1,093	1,081	1,094	1,062	975	826	751
Engineering, other	6,180	5,158	3,590	3,631	2,910	3,044	3,206	3,281
Total, health fields	35,798	37,524	40,148	42,138	44,889	46,454	47,507	47,325
Clinical fields	1,219	1,280	1,456	1,510	1,675	1,630	1,751	2,006
Dental sciences	746	791	840	862	919	925	992	1,113
Nursing	14,366	14,810	15,609	16,333	18,116	18,654	17,881	17,267
Pharmaceutical sciences	2,218	2,243	2,258	2,349	2,335	2,385	2,429	2,489
Preventive medicine/community health	5,505	5,687	5,875	6,479	6,570	6,979	6,820	6,127
Speech pathology/audiology	5,412	5,702	6,269	6,419	6,770	6,919	7,399	7,537
Veterinary sciences	821	821	880	802	807	875	894	1,123
Other health fields	5,511	6,190	6,961	7,384	7,697	8,087	9,341	9,663

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 34. Graduate students in science, engineering, and health fields in private doctorate-granting institutions, by detailed field: 1990-97

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	120,966	125,264	130,881	133,840	133,768	132,254	131,218	129,692
Total, science and engineering fields	109,197	112,778	117,447	118,452	117,296	114,485	113,836	111,843
Sciences, total	79,380	82,093	86,010	87,562	87,373	86,357	86,467	84,864
Physical sciences, total	9,150	9,291	9,431	9,321	9,102	8,687	8,513	8,188
Astronomy	274	283	308	301	382	356	349	307
Chemistry	5,132	5,252	5,327	5,314	5,200	5,037	5,023	4,800
Physics	3,723	3,756	3,796	3,706	3,503	3,275	3,135	3,076
Physical sciences, n.e.c.	21	0	0	0	17	19	6	5
Earth, atmos., & ocean sci., total	2,302	2,440	2,533	2,572	2,717	2,427	2,286	2,113
Atmospheric sciences	28	20	25	18	19	25	20	24
Geosciences	1,391	1,360	1,388	1,401	1,414	1,329	1,260	1,195
Oceanography	414	433	454	477	559	440	414	391
Earth, atmos., & ocean sci., n.e.c.	469	627	666	676	725	633	592	503
Mathematical sciences	4,063	4,181	4,296	4,187	4,216	4,081	3,965	3,728
Computer sciences	11,736	11,576	12,410	12,512	11,717	11,152	11,833	11,751
Agricultural sciences	443	477	452	437	438	409	404	375
Biological sciences, total	12,591	13,168	13,708	14,320	14,828	15,362	15,349	15,321
Anatomy	285	286	288	267	274	277	318	316
Biochemistry	1,551	1,623	1,685	1,785	1,694	1,637	1,510	1,460
Biology	3,347	3,266	3,372	3,377	3,317	3,445	3,480	3,594
Biometry/epidemiology	789	806	803	930	978	1,088	1,224	1,166
Biophysics	286	310	334	354	379	373	374	329
Botany	167	168	126	139	120	139	137	143
Cell biology	1,113	1,222	1,269	1,285	1,483	1,532	1,499	1,474
Ecology	56	88	89	89	106	102	98	90
Entomology/parasitology	68	69	66	61	70	62	63	60
Genetics	366	420	466	586	566	574	560	569
Microbio., immunology, & virology	1,209	1,335	1,387	1,460	1,503	1,497	1,491	1,467
Nutrition	597	597	616	733	780	853	847	825
Pathology	387	391	397	503	557	552	557	611
Pharmacology	719	760	772	772	851	828	855	832
Physiology	738	802	791	813	857	992	938	925
Zoology	134	151	138	139	134	149	127	125
Biosciences, n.e.c.	779	874	1,109	1,027	1,159	1,262	1,271	1,335
Psychology	16,844	18,429	19,002	19,454	19,587	18,995	19,320	19,141
Social sciences, total	22,251	22,531	24,178	24,759	24,768	25,244	24,797	24,247
Agricultural economics	115	115	118	112	115	133	86	70
Anthropology (cultural & social)	1,742	1,766	1,918	1,904	2,019	2,091	2,095	2,066
Economics (except agricultural)	4,281	4,251	4,408	4,315	4,199	4,210	4,022	3,764
Geography	187	199	303	326	334	294	318	293
Linguistics	1,010	1,043	835	835	860	811	875	840
Political science	9,695	9,969	10,927	11,492	11,461	11,510	11,291	10,858
Sociology	1,836	1,839	2,080	2,176	2,185	2,205	2,113	2,131
Sociology/anthropology	308	281	280	189	183	188	181	165
Social sciences, other	3,077	3,068	3,309	3,410	3,412	3,802	3,816	4,060
Engineering, total	29,817	30,685	31,437	30,890	29,923	28,128	27,369	26,979
Aerospace engineering	886	840	826	803	781	738	741	719
Agricultural engineering	48	40	41	48	55	56	53	48
Biomedical engineering	836	909	988	1,012	1,073	1,042	1,014	961
Chemical engineering	1,860	1,920	1,937	1,950	1,979	1,949	1,989	2,024
Civil engineering	3,491	3,917	4,384	4,403	4,661	4,376	4,158	3,732
Electrical engineering	11,048	11,158	11,211	10,725	9,705	8,748	8,912	9,207
Engineering science	788	767	729	729	710	658	495	519
Industrial/manufacturing eng.	3,345	3,581	3,686	3,626	3,761	3,783	3,584	3,418
Mechanical engineering	4,459	4,438	4,484	4,531	4,381	3,930	3,602	3,565
Metallurgical/materials eng.	1,723	1,657	1,681	1,570	1,475	1,426	1,377	1,357
Nuclear engineering	205	189	205	212	184	179	154	117
Engineering, other	1,128	1,269	1,265	1,281	1,158	1,243	1,290	1,312
Total, health fields	11,769	12,486	13,434	15,388	16,472	17,769	17,382	17,849
Clinical fields	504	752	840	933	974	966	999	1,048
Dental sciences	210	225	281	273	280	326	299	321
Nursing	4,267	4,139	4,329	4,468	4,572	4,910	4,433	4,316
Pharmaceutical sciences	669	724	530	502	555	541	518	546
Preventive medicine/community health	2,526	2,496	2,658	3,116	3,508	3,596	3,385	3,391
Speech pathology/audiology	974	1,020	1,234	1,573	1,648	1,750	1,774	1,898
Veterinary sciences	60	54	43	51	51	40	38	37
Other health fields	2,559	3,076	3,519	4,472	4,884	5,640	5,936	6,292

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 35. Graduate students in science and engineering fields in doctorate-granting institutions, by enrollment status, citizenship, and racial/ethnic background of U.S. citizens: 1990-97

Page 1 of 1

Enrollment status, citizenship, and racial/ethnic background	1990	1991	1992	1993	1994	1995	1996	1997
Total enrollment	352,804	365,499	380,923	384,986	381,554	372,994	366,805	359,476
Total U.S. citizens	255,314	262,381	276,665	284,023	283,764	278,480	272,978	265,081
Black, non-Hispanic	9,834	10,531	11,940	12,931	13,443	13,945	14,425	14,437
American Indian/Alaskan Native	920	937	1,030	1,098	1,198	1,274	1,315	1,363
Asian/Pacific Islander	14,849	15,471	18,247	20,643	23,049	22,396	22,498	22,560
Hispanic	8,819	9,511	10,494	11,388	11,347	11,956	12,388	12,685
White, non-Hispanic	209,458	213,270	221,729	224,029	223,065	214,708	208,494	199,425
Other or unknown	11,434	12,661	13,225	13,934	11,662	14,201	13,858	14,611
Non-U.S. citizens	97,490	103,118	104,258	100,963	97,790	94,514	93,827	94,395
Full-time enrollment	250,530	261,154	273,142	276,296	275,324	269,413	266,232	262,161
Total U.S. citizens	165,955	172,349	183,096	189,382	191,491	188,482	185,277	180,140
Black, non-Hispanic	6,033	6,578	7,630	8,403	8,905	9,043	9,193	9,337
American Indian/Alaskan Native	608	636	743	812	871	955	977	997
Asian/Pacific Islander	9,968	10,520	12,390	14,236	16,108	15,650	15,639	15,722
Hispanic	5,969	6,458	6,990	7,506	7,513	8,306	8,473	8,677
White, non-Hispanic	137,864	141,388	148,138	150,585	151,664	146,609	143,198	137,093
Other or unknown	5,513	6,769	7,205	7,840	6,430	7,919	7,797	8,314
Non-U.S. citizens	84,575	88,805	90,046	86,914	83,833	80,931	80,955	82,021
Part-time enrollment	102,274	104,345	107,781	108,690	106,230	103,581	100,573	97,315
Total U.S. citizens	89,359	90,032	93,569	94,641	92,273	89,998	87,701	84,941
Black, non-Hispanic	3,801	3,953	4,310	4,528	4,538	4,902	5,232	5,100
American Indian/Alaskan Native	312	301	287	286	327	319	338	366
Asian/Pacific Islander	4,881	4,951	5,857	6,407	6,941	6,746	6,859	6,838
Hispanic	2,850	3,053	3,504	3,882	3,834	3,650	3,915	4,008
White, non-Hispanic	71,594	71,882	73,591	73,444	71,401	68,099	65,296	62,332
Other or unknown	5,921	5,892	6,020	6,094	5,232	6,282	6,061	6,297
Non-U.S. citizens	12,915	14,313	14,212	14,049	13,957	13,583	12,872	12,374

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 36. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

Page 1 of 2

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Total, all surveyed fields	424,650	17,857	1,667	26,347	15,356	246,945	17,457	99,021
Total, science and engineering fields	359,476	14,437	1,363	22,560	12,685	199,425	14,611	94,395
Sciences, total	264,995	11,955	1,150	15,383	10,137	156,656	10,577	59,137
Physical sciences, total	29,652	791	67	1,497	736	15,058	901	10,602
Astronomy	778	11	1	39	11	514	17	185
Chemistry	17,774	550	48	988	494	9,248	533	5,913
Physics	10,901	218	18	454	226	5,162	350	4,473
Physical sciences, n.e.c.	199	12	0	16	5	134	1	31
Earth, atmos., & ocean sci., total	12,986	169	69	354	341	9,183	420	2,450
Atmospheric sciences	1,081	12	2	56	12	651	60	288
Geosciences	6,543	53	35	154	147	4,665	218	1,271
Oceanography	2,313	24	16	56	110	1,566	39	502
Earth, atmos., & ocean sci., n.e.c.	3,049	80	16	88	72	2,301	103	389
Mathematical sciences	14,863	506	37	856	321	7,387	491	5,265
Computer sciences	30,106	1,007	47	3,627	561	11,770	1,714	11,380
Agricultural sciences	11,078	167	48	268	364	7,246	305	2,680
Biological sciences, total	52,870	1,871	178	4,203	1,750	32,208	1,736	10,924
Anatomy	1,094	44	3	107	15	669	34	222
Biochemistry	5,040	121	13	559	142	2,651	163	1,391
Biology	11,502	543	44	679	493	7,283	545	1,915
Biometry/epidemiology	2,900	160	11	314	137	1,641	126	511
Biophysics	748	17	1	86	17	415	41	171
Botany	2,396	87	3	76	50	1,433	55	692
Cell biology	3,807	93	9	328	109	2,371	98	799
Ecology	1,511	13	8	43	45	1,180	56	166
Entomology/parasitology	1,161	14	1	41	42	749	24	290
Genetics	1,713	37	6	129	42	1,063	32	404
Microbio., immunology, & virology	4,829	194	11	478	171	2,864	119	992
Nutrition	4,224	184	11	240	133	2,506	80	1,070
Pathology	1,621	39	11	171	44	997	67	292
Pharmacology	2,582	114	5	245	84	1,534	52	548
Physiology	2,298	101	7	331	65	1,283	87	424
Zoology	1,723	14	12	55	30	1,386	29	197
Biosciences, n.e.c.	3,721	96	22	321	131	2,183	128	840
Psychology	39,110	2,229	267	1,543	2,404	29,029	1,857	1,781
Social sciences, total	74,330	5,215	437	3,035	3,660	44,775	3,153	14,055
Agricultural economics	2,015	48	3	49	53	900	47	915
Anthropology (cultural & social)	7,236	247	99	218	309	5,436	233	694
Economics (except agricultural)	10,479	273	16	493	252	3,992	282	5,171
Geography	3,760	64	11	111	81	2,831	155	507
Linguistics	2,733	45	7	170	131	1,344	129	907
Political science	25,983	2,509	127	1,077	1,560	16,226	1,278	3,206
Sociology	8,180	717	67	366	481	5,223	223	1,103
Sociology/anthropology	874	84	10	21	43	559	66	91
Social sciences, other	13,070	1,228	97	530	750	8,264	740	1,461
Engineering, total	94,481	2,482	213	7,177	2,548	42,769	4,034	35,258
Aerospace engineering	3,029	35	3	148	67	1,418	60	1,298
Agricultural engineering	941	21	8	47	17	384	44	420
Biomedical engineering	2,785	83	6	310	54	1,522	110	700
Chemical engineering	7,125	155	18	495	138	3,303	215	2,801
Civil engineering	15,904	385	49	863	610	8,551	542	4,904
Electrical engineering	28,093	720	41	2,998	727	10,051	1,442	12,114
Engineering science	1,636	38	4	202	41	873	30	448
Industrial/manufacturing eng.	10,657	421	22	656	371	5,403	539	3,245
Mechanical engineering	14,278	350	34	867	335	6,656	526	5,510
Metallurgical/materials eng.	4,572	108	11	282	81	1,958	192	1,940
Nuclear engineering	868	21	3	38	22	475	6	303
Engineering, other	4,593	145	14	271	85	2,175	328	1,575

See explanatory information, if any, and SOURCE at end of table.

Table 36. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

Page 2 of 2

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Total, health fields	65,174	3,420	304	3,787	2,671	47,520	2,846	4,626
Clinical fields	3,054	172	17	338	101	1,912	276	238
Dental sciences	1,434	25	4	153	57	841	20	334
Nursing	21,583	1,250	116	761	783	17,319	926	428
Pharmaceutical sciences	3,035	131	3	238	135	1,242	126	1,160
Preventive medicine/community health	9,518	759	51	1,021	558	5,616	424	1,089
Speech pathology/audiology	9,435	401	44	176	337	7,775	398	304
Veterinary sciences	1,160	29	7	26	29	755	14	300
Other health fields	15,955	653	62	1,074	671	12,060	662	773

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 37. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1990-97

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	275,433	287,809	301,772	307,693	309,329	305,659	304,234	301,573
Total, science and engineering fields	250,530	261,154	273,142	276,296	275,324	269,413	266,232	262,161
Sciences, total	186,494	192,088	200,921	204,628	205,825	203,585	202,165	198,327
Physical sciences, total	28,855	29,453	30,074	29,946	29,361	28,233	27,317	26,268
Astronomy	790	810	840	848	953	871	854	768
Chemistry	15,987	16,337	16,654	16,800	16,701	16,338	16,073	15,583
Physics	11,977	12,198	12,452	12,180	11,543	10,850	10,243	9,795
Physical sciences, n.e.c.	101	108	128	118	164	174	147	122
Earth, atmos., & ocean sci., total	9,858	9,923	10,485	10,799	10,884	10,728	10,255	9,934
Atmospheric sciences	828	857	958	978	981	956	977	964
Geosciences	5,612	5,535	5,708	5,799	5,776	5,608	5,394	5,221
Oceanography	1,887	1,931	2,061	2,130	2,263	2,183	2,038	1,924
Earth, atmos., & ocean sci., n.e.c.	1,531	1,600	1,758	1,892	1,864	1,981	1,846	1,825
Mathematical sciences	13,269	13,627	14,016	13,844	13,499	12,743	12,324	11,538
Computer sciences	14,898	14,870	15,769	15,827	15,389	15,216	15,633	16,488
Agricultural sciences	8,748	8,873	9,109	9,102	9,132	9,156	8,882	8,677
Biological sciences, total	39,595	41,282	42,832	44,659	46,210	46,435	45,837	45,064
Anatomy	911	961	960	977	983	978	1,042	1,033
Biochemistry	4,810	4,940	5,030	5,138	5,201	5,165	4,949	4,776
Biology	8,037	8,292	8,444	8,634	8,694	8,562	8,539	8,800
Biometry/epidemiology	1,231	1,431	1,634	1,990	2,056	2,093	2,162	2,005
Biophysics	605	679	728	755	770	800	807	728
Botany	2,341	2,286	2,279	2,351	2,345	2,146	2,128	2,049
Cell biology	2,485	2,716	2,961	3,186	3,592	3,692	3,669	3,649
Ecology	878	908	976	1,040	1,187	1,276	1,239	1,184
Entomology/parasitology	997	1,014	1,016	1,039	1,066	1,041	1,027	995
Genetics	1,255	1,371	1,488	1,640	1,553	1,572	1,605	1,620
Microbio., immunology, & virology	4,361	4,401	4,445	4,600	4,698	4,666	4,531	4,408
Nutrition	2,773	2,823	2,774	2,910	3,072	3,272	3,296	3,127
Pathology	1,055	1,085	1,138	1,264	1,359	1,350	1,339	1,418
Pharmacology	2,222	2,304	2,397	2,499	2,672	2,529	2,499	2,446
Physiology	2,076	2,163	2,160	2,220	2,221	2,376	2,217	2,103
Zoology	1,671	1,760	1,768	1,743	1,712	1,741	1,625	1,513
Biosciences, n.e.c.	1,887	2,148	2,634	2,673	3,029	3,176	3,163	3,210
Psychology	25,592	26,567	27,783	28,278	28,560	28,478	28,705	28,764
Social sciences, total	45,679	47,493	50,853	52,173	52,790	52,596	53,212	51,594
Agricultural economics	1,934	1,976	2,069	1,910	1,892	1,948	1,759	1,697
Anthropology (cultural & social)	4,730	4,987	5,231	5,332	5,718	5,662	5,866	5,624
Economics (except agricultural)	9,037	9,543	9,816	9,777	9,654	9,402	9,232	8,521
Geography	2,175	2,325	2,567	2,760	2,831	2,741	2,757	2,714
Linguistics	2,552	2,510	2,401	2,447	2,420	2,382	2,433	2,272
Political science	13,932	14,545	16,104	16,860	16,411	16,022	16,074	15,428
Sociology	5,424	5,606	6,080	6,167	6,295	6,284	6,165	6,198
Sociology/anthropology	706	583	612	613	644	617	590	631
Social sciences, other	5,189	5,418	5,973	6,307	6,925	7,538	8,336	8,509
Engineering, total	64,036	69,066	72,221	71,668	69,499	65,828	64,067	63,834
Aerospace engineering	2,946	3,258	3,269	3,227	2,967	2,668	2,545	2,505
Agricultural engineering	799	823	840	835	879	859	799	748
Biomedical engineering	1,761	1,900	2,138	2,234	2,246	2,277	2,281	2,411
Chemical engineering	5,420	5,753	5,900	6,002	6,054	5,905	5,856	5,713
Civil engineering	9,877	10,992	12,016	11,982	12,175	11,781	11,381	10,891
Electrical engineering	17,957	19,199	20,232	19,669	18,719	17,569	17,389	18,301
Engineering science	1,241	1,357	1,408	1,395	1,343	1,241	1,054	1,016
Industrial/manufacturing eng.	4,488	5,397	5,843	5,682	5,685	5,104	4,960	4,910
Mechanical engineering	10,589	11,415	12,079	12,128	11,642	10,933	10,437	10,174
Metallurgical/materials eng.	3,910	4,038	4,255	4,226	4,084	3,864	3,687	3,646
Nuclear engineering	1,080	1,080	1,084	1,070	997	883	771	708
Engineering, other	3,968	3,854	3,157	3,218	2,708	2,744	2,907	2,811
Total, health fields	24,903	26,655	28,630	31,397	34,005	36,246	38,002	39,412
Clinical fields	1,448	1,682	1,873	2,048	2,190	2,171	2,234	2,453
Dental sciences	827	875	988	1,005	1,048	1,096	1,116	1,235
Nursing	5,568	5,674	5,627	5,975	6,770	7,211	7,195	7,512
Pharmaceutical sciences	2,148	2,198	2,074	2,130	2,188	2,152	2,225	2,232
Preventive medicine/community health	4,462	4,371	4,750	5,240	5,342	5,850	5,688	5,437
Speech pathology/audiology	4,657	5,100	5,652	6,241	6,595	6,665	7,093	7,332
Veterinary sciences	698	706	743	673	679	719	722	972
Other health fields	5,095	6,049	6,923	8,085	9,193	10,382	11,729	12,239

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990-97

Page 1 of 5

Field and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields:								
Total, all sources	275,433	287,809	301,772	307,693	309,329	305,659	304,234	301,573
Federal, total	58,193	61,708	64,279	66,380	67,003	65,895	64,029	63,019
Dept. of Defense	8,795	9,043	9,134	9,641	9,315	9,160	8,625	8,876
Dept. of HHS, total	19,258	20,142	21,125	21,663	22,198	22,299	21,929	21,820
NIH	14,919	15,922	16,980	17,969	18,125	17,978	17,837	17,838
Other HHS	4,339	4,220	4,145	3,694	4,073	4,321	4,092	3,982
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	2,226	2,501
NSF	11,981	12,598	13,293	13,410	13,764	13,538	13,339	13,264
USDA	2,687	3,042	3,168	3,271	3,364	3,200	2,946	2,594
All other Federal	15,472	16,883	17,559	18,395	18,362	17,698	14,964	13,964
Institutional support	118,470	120,529	122,674	123,900	124,097	124,153	122,866	123,272
Other non-Federal support, total	25,778	26,690	27,390	26,323	26,807	25,464	24,859	24,698
All other U.S.	19,353	20,126	21,010	20,892	21,143	19,982	19,664	19,893
Foreign	6,425	6,564	6,380	5,431	5,664	5,482	5,195	4,805
Self-support	72,992	78,882	87,429	91,090	91,422	90,147	92,480	90,584
Total, science and engineering:								
Total, all sources	250,530	261,154	273,142	276,296	275,324	269,413	266,232	262,161
Federal, total	51,706	55,166	57,326	59,469	59,788	58,539	57,094	55,902
Dept. of Defense	8,425	8,640	8,753	9,220	8,951	8,834	8,317	8,568
Dept. of HHS, total	14,522	15,381	16,154	16,701	17,035	17,024	16,817	16,610
NIH	13,298	14,081	14,930	15,749	15,843	15,600	15,411	15,181
Other HHS	1,224	1,300	1,224	952	1,192	1,424	1,406	1,429
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	2,212	2,480
NSF	11,932	12,542	13,223	13,325	13,656	13,447	13,258	13,169
USDA	2,629	2,982	3,099	3,202	3,297	3,152	2,902	2,560
All other Federal	14,198	15,621	16,097	17,021	16,849	16,082	13,588	12,515
Institutional support	111,758	113,592	115,610	116,418	116,259	115,856	114,505	114,478
Other non-Federal support, total	24,431	25,185	25,717	24,615	24,990	23,535	22,904	22,782
All other U.S.	18,459	19,079	19,793	19,622	19,780	18,572	18,136	18,464
Foreign	5,972	6,106	5,924	4,993	5,210	4,963	4,768	4,318
Self-support	62,635	67,211	74,489	75,794	74,287	71,483	71,729	68,999
Sciences, total:								
Total, all sources	186,494	192,088	200,921	204,628	205,825	203,585	202,165	198,327
Federal, total	37,182	39,372	40,972	42,801	43,266	42,397	41,505	40,279
Dept. of Defense	3,743	3,808	3,843	4,143	4,303	4,101	3,857	3,850
Dept. of HHS, total	13,762	14,574	15,259	15,781	16,133	16,106	15,982	15,702
NIH	12,637	13,360	14,138	14,959	15,065	14,832	14,680	14,420
Other HHS	1,125	1,214	1,121	822	1,068	1,274	1,302	1,282
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	1,153	1,257
NSF	8,064	8,275	8,652	8,815	9,049	8,906	8,697	8,606
USDA	2,399	2,708	2,753	2,910	2,964	2,812	2,612	2,347
All other Federal	9,214	10,007	10,465	11,152	10,817	10,472	9,204	8,517
Institutional support	88,890	89,456	91,241	91,967	92,164	92,486	91,524	91,146
Other non-Federal support, total	14,136	14,671	15,281	14,969	15,706	14,512	14,100	13,820
All other U.S.	10,143	10,635	11,351	11,595	12,090	11,179	10,858	10,918
Foreign	3,993	4,036	3,930	3,374	3,616	3,333	3,242	2,902
Self-support	46,286	48,589	53,427	54,891	54,689	54,190	55,036	53,082
Physical sciences;:								
Total, all sources	28,855	29,453	30,074	29,946	29,361	28,233	27,317	26,268
Federal, total	10,216	10,750	10,929	11,018	10,940	10,270	9,807	9,350
Dept. of Defense	1,213	1,225	1,190	1,184	1,313	1,195	1,069	1,031
Dept. of HHS, total	2,081	2,017	2,164	2,135	2,179	2,056	2,050	1,928
NIH	1,937	1,849	2,036	2,026	2,050	1,889	1,784	1,624
Other HHS	144	168	128	109	129	167	266	304
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	523	569
NSF	3,561	3,561	3,594	3,607	3,689	3,574	3,371	3,362
USDA	54	60	66	60	42	38	43	30
All other Federal	3,307	3,887	3,915	4,032	3,717	3,407	2,751	2,430
Institutional support	14,931	14,683	15,015	14,831	14,448	14,440	13,970	13,809
Other non-Federal support, total	1,957	2,211	2,330	2,227	2,304	2,074	2,072	1,860
All other U.S.	1,700	1,912	2,025	1,949	1,998	1,787	1,793	1,646
Foreign	257	299	305	278	306	287	279	214
Self-support	1,751	1,809	1,800	1,870	1,669	1,449	1,468	1,249

See explanatory information, if any, and SOURCE at end of table.

Table 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990-97

Page 2 of 5

Field and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Earth, atmospheric, & ocean sciences:								
Total, all sources	9,858	9,923	10,485	10,799	10,884	10,728	10,255	9,934
Federal, total	2,971	3,092	3,403	3,623	3,577	3,441	3,253	3,082
Dept. of Defense	451	449	472	513	493	408	389	364
Dept. of HHS, total	34	56	49	48	37	33	49	40
NIH	21	23	43	41	36	30	30	27
Other HHS	13	33	6	7	1	3	19	13
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	326	350
NSF	1,201	1,217	1,312	1,352	1,393	1,375	1,238	1,198
USDA	57	69	85	64	61	64	74	51
All other Federal	1,228	1,301	1,485	1,646	1,593	1,561	1,177	1,079
Institutional support	4,073	4,105	4,080	4,114	4,126	4,200	4,034	4,125
Other non-Federal support, total	937	960	989	921	1,014	958	885	873
All other U.S.	667	673	746	729	782	724	669	689
Foreign	270	287	243	192	232	234	216	184
Self-support	1,877	1,766	2,013	2,141	2,167	2,129	2,083	1,854
Mathematical sciences:								
Total, all sources	13,269	13,627	14,016	13,844	13,499	12,743	12,324	11,538
Federal, total	1,306	1,471	1,460	1,436	1,372	1,264	1,228	1,158
Dept. of Defense	366	376	385	399	371	321	351	361
Dept. of HHS, total	49	69	118	80	76	87	82	96
NIH	39	64	111	74	68	63	61	66
Other HHS	10	5	7	6	8	24	21	30
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	21	19
NSF	490	450	455	462	509	465	435	388
USDA	23	21	24	27	16	13	9	16
All other Federal	378	555	478	468	400	378	330	278
Institutional support	9,159	9,185	9,199	9,035	9,071	8,766	8,506	8,164
Other non-Federal support, total	552	579	617	505	537	477	545	473
All other U.S.	311	310	348	284	319	290	338	296
Foreign	241	269	269	221	218	187	207	177
Self-support	2,252	2,392	2,740	2,868	2,519	2,236	2,045	1,743
Computer sciences:								
Total, all sources	14,898	14,870	15,769	15,827	15,389	15,216	15,633	16,488
Federal, total	2,376	2,501	2,595	2,883	3,007	3,109	3,074	3,114
Dept. of Defense	1,127	1,125	1,171	1,314	1,311	1,390	1,335	1,411
Dept. of HHS, total	68	71	100	103	97	110	113	106
NIH	61	65	97	95	89	92	80	78
Other HHS	7	6	3	8	8	18	33	28
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	119	114
NSF	818	896	958	1,003	1,040	1,050	1,044	1,076
USDA	14	8	6	7	9	13	13	12
All other Federal	349	401	360	456	550	546	450	395
Institutional support	5,278	5,110	5,262	5,182	5,111	5,172	5,320	5,544
Other non-Federal support, total	1,229	1,276	1,306	1,342	1,342	1,249	1,093	1,130
All other U.S.	915	957	990	1,090	1,066	1,024	852	974
Foreign	314	319	316	252	276	225	241	156
Self-support	6,015	5,983	6,606	6,420	5,929	5,686	6,146	6,700
Agricultural sciences:								
Total, all sources	8,748	8,873	9,109	9,102	9,132	9,156	8,882	8,677
Federal, total	1,742	1,830	1,942	1,946	1,906	2,011	1,927	1,741
Dept. of Defense	18	26	18	37	35	32	38	39
Dept. of HHS, total	45	45	41	34	48	23	31	29
NIH	40	37	38	32	45	17	17	21
Other HHS	5	8	3	2	3	6	14	8
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	22	20
NSF	65	61	76	76	87	88	95	100
USDA	939	1,098	1,093	1,140	1,108	1,172	1,040	937
All other Federal	675	600	714	659	628	696	701	616
Institutional support	3,345	3,442	3,516	3,541	3,722	3,758	3,582	3,553
Other non-Federal support, total	1,763	1,712	1,683	1,666	1,653	1,461	1,432	1,544
All other U.S.	1,098	1,056	1,097	1,176	1,137	1,062	1,082	1,208
Foreign	665	656	586	490	516	399	350	336
Self-support	1,898	1,889	1,968	1,949	1,851	1,926	1,941	1,839

See explanatory information, if any, and SOURCE at end of table.

Table 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990-97

Page 3 of 5

Field and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Biological sciences:								
Total, all sources	39,595	41,282	42,832	44,659	46,210	46,435	45,837	45,064
Federal, total	13,519	14,372	15,002	16,048	16,583	16,492	16,435	16,111
Dept. of Defense	222	220	229	269	346	354	358	358
Dept. of HHS, total	9,908	10,616	10,989	11,554	11,927	12,004	11,819	11,723
NIH	9,542	10,164	10,575	11,236	11,412	11,332	11,230	11,141
Other HHS	366	452	414	318	515	672	589	582
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	85	108
NSF	1,201	1,269	1,333	1,362	1,369	1,399	1,484	1,518
USDA	960	1,060	1,078	1,215	1,280	1,078	1,065	921
All other Federal	1,228	1,207	1,373	1,648	1,661	1,657	1,624	1,483
Institutional support	18,217	18,584	19,046	19,265	19,895	19,987	19,553	19,432
Other non-Federal support, total	3,515	3,703	3,758	3,836	4,116	3,873	3,713	3,528
All other U.S.	2,790	2,989	3,082	3,255	3,483	3,267	3,156	3,010
Foreign	725	714	676	581	633	606	557	518
Self-support	4,344	4,623	5,026	5,510	5,616	6,083	6,136	5,993
Psychology:								
Total, all sources	25,592	26,567	27,783	28,278	28,560	28,478	28,705	28,764
Federal, total	2,252	2,379	2,456	2,565	2,528	2,466	2,662	2,627
Dept. of Defense	137	146	135	163	172	174	136	110
Dept. of HHS, total	1,263	1,332	1,378	1,412	1,347	1,320	1,512	1,429
NIH	787	891	942	1,153	1,080	1,089	1,213	1,179
Other HHS	476	441	436	259	267	231	299	250
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	7	12
NSF	261	267	281	308	287	286	287	277
USDA	37	24	19	15	27	16	5	7
All other Federal	554	610	643	667	695	670	715	792
Institutional support	11,068	11,158	11,366	12,006	11,827	11,762	11,838	12,168
Other non-Federal support, total	1,079	1,026	1,083	1,031	1,142	1,072	955	1,185
All other U.S.	1,021	972	1,026	984	1,069	1,029	916	1,128
Foreign	58	54	57	47	73	43	39	57
Self-support	11,193	12,004	12,878	12,676	13,063	13,178	13,250	12,784
Social sciences:								
Total, all sources	45,679	47,493	50,853	52,173	52,790	52,596	53,212	51,594
Federal, total	2,800	2,977	3,185	3,282	3,353	3,344	3,119	3,096
Dept. of Defense	209	241	243	264	262	227	181	176
Dept. of HHS, total	314	368	420	415	422	473	326	351
NIH	210	267	296	302	285	320	265	284
Other HHS	104	101	124	113	137	153	61	67
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	50	65
NSF	467	554	643	645	675	669	743	687
USDA	315	368	382	382	421	418	363	373
All other Federal	1,495	1,446	1,497	1,576	1,573	1,557	1,456	1,444
Institutional support	22,819	23,189	23,757	23,993	23,964	24,401	24,721	24,351
Other non-Federal support, total	3,104	3,204	3,515	3,441	3,598	3,348	3,405	3,227
All other U.S.	1,641	1,766	2,037	2,128	2,236	1,996	2,052	1,967
Foreign	1,463	1,438	1,478	1,313	1,362	1,352	1,353	1,260
Self-support	16,956	18,123	20,396	21,457	21,875	21,503	21,967	20,920
Engineering, total:								
Total, all sources	64,036	69,066	72,221	71,668	69,499	65,828	64,067	63,834
Federal, total	14,524	15,794	16,354	16,668	16,522	16,142	15,589	15,623
Dept. of Defense	4,682	4,832	4,910	5,077	4,648	4,733	4,460	4,718
Dept. of HHS, total	760	807	895	920	902	918	835	908
NIH	661	721	792	790	778	768	731	761
Other HHS	99	86	103	130	124	150	104	147
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	1,059	1,223
NSF	3,868	4,267	4,571	4,510	4,607	4,541	4,561	4,563
USDA	230	274	346	292	333	340	290	213
All other Federal	4,984	5,614	5,632	5,869	6,032	5,610	4,384	3,998
Institutional support	22,868	24,136	24,369	24,451	24,095	23,370	22,981	23,332
Other non-Federal support, total	10,295	10,514	10,436	9,646	9,284	9,023	8,804	8,962
All other U.S.	8,316	8,444	8,442	8,027	7,690	7,393	7,278	7,546
Foreign	1,979	2,070	1,994	1,619	1,594	1,630	1,526	1,416
Self-support	16,349	18,622	21,062	20,903	19,598	17,293	16,693	15,917

See explanatory information, if any, and SOURCE at end of table.

Table 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990-97

Page 4 of 5

Field and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Chemical engineering:								
Total, all sources	5,420	5,753	5,900	6,002	6,054	5,905	5,856	5,713
Federal, total	1,528	1,592	1,643	1,735	1,706	1,740	1,769	1,622
Dept. of Defense	98	134	123	138	128	164	166	158
Dept. of HHS, total	121	132	166	141	173	163	162	137
NIH	119	128	146	119	143	136	148	121
Other HHS	2	4	20	22	30	27	14	16
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	89	77
NSF	678	663	696	726	747	759	776	705
USDA	27	16	38	52	54	66	34	25
All other Federal	604	647	620	678	604	588	542	520
Institutional support	2,094	2,262	2,286	2,328	2,394	2,257	2,141	2,202
Other non-Federal support, total	1,236	1,222	1,164	1,057	1,143	1,071	1,105	1,128
All other U.S.	1,138	1,106	1,068	958	1,039	936	949	948
Foreign	98	116	96	99	104	135	156	180
Self-support	562	677	807	882	811	837	841	761
Civil engineering:								
Total, all sources	9,877	10,992	12,016	11,982	12,175	11,781	11,381	10,891
Federal, total	1,452	1,732	1,996	1,943	2,019	1,917	1,843	1,769
Dept. of Defense	235	273	349	322	315	271	196	223
Dept. of HHS, total	15	32	41	38	45	41	39	47
NIH	11	28	36	30	37	31	33	41
Other HHS	4	4	5	8	8	10	6	6
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	117	121
NSF	424	496	531	513	553	528	534	521
USDA	35	51	68	51	53	53	70	40
All other Federal	743	880	1,007	1,019	1,053	1,024	887	817
Institutional support	3,845	4,131	4,329	4,497	4,671	4,780	4,674	4,645
Other non-Federal support, total	1,244	1,323	1,436	1,244	1,219	1,148	1,144	1,064
All other U.S.	823	912	1,019	971	938	869	901	844
Foreign	421	411	417	273	281	279	243	220
Self-support	3,336	3,806	4,255	4,298	4,266	3,936	3,720	3,413
Electrical engineering:								
Total, all sources	17,957	19,199	20,232	19,669	18,719	17,569	17,389	18,301
Federal, total	3,529	3,791	3,986	4,033	3,974	4,004	3,927	4,338
Dept. of Defense	1,636	1,623	1,680	1,734	1,649	1,699	1,647	1,961
Dept. of HHS, total	77	85	90	103	100	113	93	113
NIH	55	76	81	86	83	84	71	68
Other HHS	22	9	9	17	17	29	22	45
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	162	214
NSF	1,131	1,253	1,360	1,260	1,266	1,298	1,298	1,324
USDA	16	18	24	9	24	33	12	14
All other Federal	669	812	832	927	935	861	715	712
Institutional support	6,196	6,459	6,659	6,539	6,233	6,085	6,269	6,541
Other non-Federal support, total	2,947	2,980	2,926	2,746	2,578	2,564	2,630	2,781
All other U.S.	2,423	2,450	2,423	2,311	2,178	2,146	2,251	2,445
Foreign	524	530	503	435	400	418	379	336
Self-support	5,285	5,969	6,661	6,351	5,934	4,916	4,563	4,641
Industrial engineering:								
Total, all sources	4,488	5,397	5,843	5,682	5,685	5,104	4,960	4,910
Federal, total	593	680	634	625	607	626	625	588
Dept. of Defense	296	279	264	244	168	167	208	193
Dept. of HHS, total	60	52	53	78	50	54	49	36
NIH	27	16	22	36	28	27	27	30
Other HHS	33	36	31	42	22	27	22	6
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	24	21
NSF	128	187	165	171	203	172	169	143
USDA	1	5	5	3	1	0	1	1
All other Federal	108	157	147	129	185	233	174	194
Institutional support	1,655	1,826	1,826	1,915	1,851	1,802	1,753	1,672
Other non-Federal support, total	556	490	564	487	548	491	454	501
All other U.S.	405	361	427	398	455	413	348	404
Foreign	151	129	137	89	93	78	106	97
Self-support	1,684	2,401	2,819	2,655	2,679	2,185	2,128	2,149

See explanatory information, if any, and SOURCE at end of table.

Table 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and source of support: 1990-97

Page 5 of 5

Field and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Mechanical engineering:								
Total, all sources	10,589	11,415	12,079	12,128	11,642	10,933	10,437	10,174
Federal, total	2,494	2,697	2,753	2,952	2,885	2,726	2,546	2,559
Dept. of Defense	735	724	715	777	763	801	709	725
Dept. of HHS, total	69	71	87	86	79	93	76	109
NIH	68	58	77	70	70	82	63	70
Other HHS	1	13	10	16	9	11	13	39
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	201	282
NSF	637	732	786	805	779	734	764	832
USDA	26	29	26	9	10	4	13	12
All other Federal	1,027	1,141	1,139	1,275	1,254	1,094	783	599
Institutional support	3,971	4,219	4,317	4,150	4,024	3,832	3,869	3,845
Other non-Federal support, total	1,578	1,666	1,599	1,550	1,552	1,588	1,441	1,438
All other U.S.	1,367	1,395	1,382	1,381	1,313	1,335	1,237	1,270
Foreign	211	271	217	169	239	253	204	168
Self-support	2,546	2,833	3,410	3,476	3,181	2,787	2,581	2,332
Other engineering:								
Total, all sources	15,705	16,310	16,151	16,205	15,224	14,536	14,044	13,845
Federal, total	4,928	5,302	5,342	5,380	5,331	5,129	4,879	4,747
Dept. of Defense	1,682	1,799	1,779	1,862	1,625	1,631	1,534	1,458
Dept. of HHS, total	418	435	458	474	455	454	416	466
NIH	381	415	430	449	417	408	389	431
Other HHS	37	20	28	25	38	46	27	35
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	466	508
NSF	870	936	1,033	1,035	1,059	1,050	1,020	1,038
USDA	125	155	185	168	191	184	160	121
All other Federal	1,833	1,977	1,887	1,841	2,001	1,810	1,283	1,156
Institutional support	5,107	5,239	4,952	5,022	4,922	4,614	4,275	4,427
Other non-Federal support, total	2,734	2,833	2,747	2,562	2,244	2,161	2,030	2,050
All other U.S.	2,160	2,220	2,123	2,008	1,767	1,694	1,592	1,635
Foreign	574	613	624	554	477	467	438	415
Self-support	2,936	2,936	3,110	3,241	2,727	2,632	2,860	2,621
Total, health fields:								
Total, all sources	24,903	26,655	28,630	31,397	34,005	36,246	38,002	39,412
Federal, total	6,487	6,542	6,953	6,911	7,215	7,356	6,935	7,117
Dept. of Defense	370	403	381	421	364	326	308	308
Dept. of HHS, total	4,736	4,761	4,971	4,962	5,163	5,275	5,112	5,210
NIH	1,621	1,841	2,050	2,220	2,282	2,378	2,426	2,657
Other HHS	3,115	2,920	2,921	2,742	2,881	2,897	2,686	2,553
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	14	21
NSF	49	56	70	85	108	91	81	95
USDA	58	60	69	69	67	48	44	34
All other Federal	1,274	1,262	1,462	1,374	1,513	1,616	1,376	1,449
Institutional support	6,712	6,937	7,064	7,482	7,838	8,297	8,361	8,794
Other non-Federal support, total	1,347	1,505	1,673	1,708	1,817	1,929	1,955	1,916
All other U.S.	894	1,047	1,217	1,270	1,363	1,410	1,528	1,429
Foreign	453	458	456	438	454	519	427	487
Self-support	10,357	11,671	12,940	15,296	17,135	18,664	20,751	21,585

¹ Data for NASA were not collected separately prior to 1996.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 39. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and mechanism of support: 1990-97

Page 1 of 2

Field and mechanism of support	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields:								
Total, all types	275,433	287,809	301,772	307,693	309,329	305,659	304,234	301,573
Fellowships	24,768	26,245	28,126	28,623	28,412	28,371	28,296	28,298
Traineeships	14,831	14,842	14,836	14,879	14,986	15,289	14,813	13,715
Research assistantships	79,068	83,338	86,164	88,115	89,665	87,647	85,408	85,543
Teaching assistantships	62,771	62,948	63,534	65,207	64,724	63,907	63,716	63,059
Other types of support	93,995	100,436	109,112	110,869	111,542	110,445	112,001	110,958
Total, science and engineering:								
Total, all types	250,530	261,154	273,142	276,296	275,324	269,413	266,232	262,161
Fellowships	23,080	24,575	26,293	26,679	26,337	26,234	25,899	25,945
Traineeships	9,958	10,287	9,852	10,082	10,137	10,429	10,197	9,472
Research assistantships	75,841	79,564	82,399	84,376	85,548	83,414	81,311	81,012
Teaching assistantships	60,519	60,583	61,154	62,842	62,068	61,186	60,836	60,096
Other types of support	81,132	86,145	93,444	92,317	91,234	88,150	87,989	85,636
Sciences, total:								
Total, all types	186,494	192,088	200,921	204,628	205,825	203,585	202,165	198,327
Fellowships	17,964	18,887	20,259	20,592	20,420	20,336	20,302	20,277
Traineeships	8,947	9,197	8,865	9,054	9,224	9,430	9,335	8,612
Research assistantships	50,712	53,040	55,108	56,686	57,815	56,636	55,087	54,417
Teaching assistantships	49,825	49,631	50,563	51,936	51,567	51,236	51,021	50,142
Other types of support	59,046	61,333	66,126	66,360	66,799	65,947	66,420	64,879
Physical sciences:								
Total, all types	28,855	29,453	30,074	29,946	29,361	28,233	27,317	26,268
Fellowships	2,232	2,625	2,804	2,678	2,390	2,304	2,156	2,138
Traineeships	658	784	694	742	664	672	630	517
Research assistantships	12,019	12,094	12,328	12,160	12,224	11,714	11,400	11,186
Teaching assistantships	11,604	11,445	11,642	11,931	11,663	11,436	10,999	10,617
Other types of support	2,342	2,505	2,606	2,435	2,420	2,107	2,132	1,810
Earth, atmospheric, & ocean sciences:								
Total, all types	9,858	9,923	10,485	10,799	10,884	10,728	10,255	9,934
Fellowships	789	885	888	898	864	883	866	815
Traineeships	84	93	120	153	138	131	131	89
Research assistantships	4,097	4,266	4,488	4,615	4,712	4,526	4,201	4,144
Teaching assistantships	2,295	2,257	2,337	2,405	2,391	2,413	2,394	2,505
Other types of support	2,593	2,422	2,652	2,728	2,779	2,775	2,663	2,381
Mathematical sciences:								
Total, all types	13,269	13,627	14,016	13,844	13,499	12,743	12,324	11,538
Fellowships	1,123	1,350	1,394	1,350	1,203	1,291	1,274	1,186
Traineeships	181	207	220	258	244	216	177	176
Research assistantships	1,267	1,293	1,330	1,349	1,460	1,367	1,231	1,329
Teaching assistantships	7,611	7,507	7,463	7,308	7,318	7,004	6,881	6,483
Other types of support	3,087	3,270	3,609	3,579	3,274	2,865	2,761	2,364
Computer sciences:								
Total, all types	14,898	14,870	15,769	15,827	15,389	15,216	15,633	16,488
Fellowships	905	868	838	799	888	893	888	894
Traineeships	143	130	142	210	239	213	187	196
Research assistantships	3,193	3,430	3,556	3,645	3,737	3,778	3,841	3,899
Teaching assistantships	3,510	3,364	3,409	3,463	3,273	3,274	3,277	3,526
Other types of support	7,147	7,078	7,824	7,710	7,252	7,058	7,440	7,973
Agricultural sciences:								
Total, all types	8,748	8,873	9,109	9,102	9,132	9,156	8,882	8,677
Fellowships	507	456	472	522	513	449	424	427
Traineeships	111	105	110	153	116	124	121	113
Research assistantships	4,676	4,939	5,126	5,191	5,342	5,297	5,105	5,021
Teaching assistantships	743	749	774	867	872	924	928	924
Other types of support	2,711	2,624	2,627	2,369	2,289	2,362	2,304	2,192
Biological sciences:								
Total, all types	39,595	41,282	42,832	44,659	46,210	46,435	45,837	45,064
Fellowships	4,602	4,608	4,983	5,165	5,459	5,299	5,194	5,406
Traineeships	4,852	5,078	4,806	4,878	5,202	5,283	5,336	5,009
Research assistantships	15,582	16,641	17,398	18,584	19,144	18,963	18,376	18,265
Teaching assistantships	8,300	8,339	8,492	8,696	8,884	8,813	8,864	8,554
Other types of support	6,259	6,616	7,153	7,336	7,521	8,077	8,067	7,830
Psychology:								
Total, all types	25,592	26,567	27,783	28,278	28,560	28,478	28,705	28,764
Fellowships	1,588	1,644	1,807	1,883	1,807	1,790	1,905	2,024
Traineeships	1,078	1,125	1,112	1,064	992	1,060	1,114	990
Research assistantships	3,702	3,863	3,881	4,140	4,186	4,161	4,208	4,215
Teaching assistantships	5,360	5,327	5,435	5,911	5,696	5,766	5,827	5,804
Other types of support	13,864	14,608	15,548	15,280	15,879	15,701	15,651	15,731

See explanatory information, if any, and SOURCE at end of table.

Table 39. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and mechanism of support: 1990-97

Page 2 of 2

Field and mechanism of support	1990	1991	1992	1993	1994	1995	1996	1997
Social sciences:								
Total, all types	45,679	47,493	50,853	52,173	52,790	52,596	53,212	51,594
Fellowships	6,218	6,451	7,073	7,297	7,296	7,427	7,595	7,387
Traineeships	1,840	1,675	1,661	1,596	1,629	1,731	1,639	1,522
Research assistantships	6,176	6,514	7,001	7,002	7,010	6,830	6,725	6,358
Teaching assistantships	10,402	10,643	11,011	11,355	11,470	11,606	11,851	11,729
Other types of support	21,043	22,210	24,107	24,923	25,385	25,002	25,402	24,598
Engineering, total:								
Total, all types	64,036	69,066	72,221	71,668	69,499	65,828	64,067	63,834
Fellowships	5,116	5,688	6,034	6,087	5,917	5,898	5,597	5,668
Traineeships	1,011	1,090	987	1,028	913	999	862	860
Research assistantships	25,129	26,524	27,291	27,690	27,733	26,778	26,224	26,595
Teaching assistantships	10,694	10,952	10,591	10,906	10,501	9,950	9,815	9,954
Other types of support	22,086	24,812	27,318	25,957	24,435	22,203	21,569	20,757
Chemical engineering:								
Total, all types	5,420	5,753	5,900	6,002	6,054	5,905	5,856	5,713
Fellowships	738	684	733	718	701	776	752	812
Traineeships	148	173	153	123	98	105	93	94
Research assistantships	2,838	2,978	3,003	3,104	3,258	3,091	3,031	2,948
Teaching assistantships	932	993	1,002	1,014	935	906	916	915
Other types of support	764	925	1,009	1,043	1,062	1,027	1,064	944
Civil engineering:								
Total, all types	9,877	10,992	12,016	11,982	12,175	11,781	11,381	10,891
Fellowships	606	674	795	883	860	884	862	832
Traineeships	211	209	213	205	187	187	174	176
Research assistantships	3,087	3,538	3,914	4,008	4,187	4,180	4,086	3,941
Teaching assistantships	1,610	1,617	1,599	1,781	1,859	1,806	1,758	1,741
Other types of support	4,363	4,954	5,495	5,105	5,082	4,724	4,501	4,201
Electrical engineering:								
Total, all types	17,957	19,199	20,232	19,669	18,719	17,569	17,389	18,301
Fellowships	1,241	1,392	1,466	1,425	1,456	1,413	1,376	1,369
Traineeships	157	182	159	169	145	155	152	122
Research assistantships	6,189	6,443	6,760	6,860	6,729	6,627	6,839	7,397
Teaching assistantships	3,329	3,363	3,323	3,306	3,128	3,031	3,113	3,264
Other types of support	7,041	7,819	8,524	7,909	7,261	6,343	5,909	6,149
Industrial engineering:								
Total, all types	4,488	5,397	5,843	5,682	5,685	5,104	4,960	4,910
Fellowships	241	258	264	278	270	298	232	236
Traineeships	36	31	27	47	32	37	14	17
Research assistantships	1,114	1,222	1,202	1,236	1,293	1,285	1,251	1,236
Teaching assistantships	831	874	865	923	917	813	770	766
Other types of support	2,266	3,012	3,485	3,198	3,173	2,671	2,693	2,655
Mechanical engineering:								
Total, all types	10,589	11,415	12,079	12,128	11,642	10,933	10,437	10,174
Fellowships	709	859	897	901	920	923	892	819
Traineeships	177	173	162	210	187	187	165	215
Research assistantships	4,278	4,604	4,701	4,726	4,623	4,352	4,201	4,276
Teaching assistantships	2,190	2,150	2,132	2,217	2,019	1,882	1,805	1,848
Other types of support	3,235	3,629	4,187	4,074	3,893	3,589	3,374	3,016
Other engineering:								
Total, all types	15,705	16,310	16,151	16,205	15,224	14,536	14,044	13,845
Fellowships	1,581	1,821	1,879	1,882	1,710	1,604	1,483	1,600
Traineeships	282	322	273	274	264	328	264	236
Research assistantships	7,623	7,739	7,711	7,756	7,643	7,243	6,816	6,797
Teaching assistantships	1,802	1,955	1,670	1,665	1,643	1,512	1,453	1,420
Other types of support	4,417	4,473	4,618	4,628	3,964	3,849	4,028	3,792
Total, health fields:								
Total, all types	24,903	26,655	28,630	31,397	34,005	36,246	38,002	39,412
Fellowships	1,688	1,670	1,833	1,944	2,075	2,137	2,397	2,353
Traineeships	4,873	4,555	4,984	4,797	4,849	4,860	4,616	4,243
Research assistantships	3,227	3,774	3,765	3,739	4,117	4,233	4,097	4,531
Teaching assistantships	2,252	2,365	2,380	2,365	2,656	2,721	2,880	2,963
Other types of support	12,863	14,291	15,668	18,552	20,308	22,295	24,012	25,322

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 40. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field and mechanism of support: 1997

Page 1 of 1

Field	Total	Fellowships	Trainee-ships	Research assistantships	Teaching assistantships	Other types of support
Total, all surveyed fields	301,573	28,298	13,715	85,543	63,059	110,958
Total, science and engineering fields	262,161	25,945	9,472	81,012	60,096	85,636
Sciences, total	198,327	20,277	8,612	54,417	50,142	64,879
Physical sciences, total	26,268	2,138	517	11,186	10,617	1,810
Astronomy	768	143	17	355	215	38
Chemistry	15,583	1,135	357	6,392	6,788	911
Physics	9,795	856	143	4,402	3,596	798
Physical sciences, n.e.c.	122	4	0	37	18	63
Earth, atmos., & ocean sci., total	9,934	815	89	4,144	2,505	2,381
Atmospheric sciences	964	55	4	628	117	160
Geosciences	5,221	477	43	1,878	1,890	933
Oceanography	1,924	172	18	1,130	196	408
Earth, atmos., & ocean sci., n.e.c.	1,825	111	24	508	302	880
Mathematical sciences	11,538	1,186	176	1,329	6,483	2,364
Computer sciences	16,488	894	196	3,899	3,526	7,973
Agricultural sciences	8,677	427	113	5,021	924	2,192
Biological sciences, total	45,064	5,406	5,009	18,265	8,554	7,830
Anatomy	1,033	175	121	391	121	225
Biochemistry	4,776	648	536	2,682	554	356
Biology	8,800	974	465	2,314	3,472	1,575
Biometry/epidemiology	2,005	195	274	483	117	936
Biophysics	728	139	143	301	47	98
Botany	2,049	161	45	1,026	598	219
Cell biology	3,649	538	904	1,573	404	230
Ecology	1,184	158	36	376	435	179
Entomology/parasitology	995	56	11	646	156	126
Genetics	1,620	174	304	794	97	251
Microbio., immunology, & virology	4,408	575	665	2,117	538	513
Nutrition	3,127	191	123	1,250	443	1,120
Pathology	1,418	247	127	524	55	465
Pharmacology	2,446	435	535	1,112	143	221
Physiology	2,103	240	320	687	209	647
Zoology	1,513	126	49	417	784	137
Biosciences, n.e.c.	3,210	374	351	1,572	381	532
Psychology	28,764	2,024	990	4,215	5,804	15,731
Social sciences, total	51,594	7,387	1,522	6,358	11,729	24,598
Agricultural economics	1,697	121	22	887	185	482
Anthropology (cultural & social)	5,624	1,227	97	440	1,295	2,565
Economics (except agricultural)	8,521	1,385	225	939	2,626	3,346
Geography	2,714	181	28	571	993	941
Linguistics	2,272	368	37	201	678	988
Political science	15,428	2,371	730	1,266	2,726	8,335
Sociology	6,198	869	233	831	2,105	2,160
Sociology/anthropology	631	21	0	127	156	327
Social sciences, other	8,509	844	150	1,096	965	5,454
Engineering, total	63,834	5,668	860	26,595	9,954	20,757
Aerospace engineering	2,505	251	17	1,224	280	733
Agricultural engineering	748	85	6	429	61	167
Biomedical engineering	2,411	418	149	921	176	747
Chemical engineering	5,713	812	94	2,948	915	944
Civil engineering	10,891	832	176	3,941	1,741	4,201
Electrical engineering	18,301	1,369	122	7,397	3,264	6,149
Engineering science	1,016	131	7	463	139	276
Industrial/manufacturing eng.	4,910	236	17	1,236	766	2,655
Mechanical engineering	10,174	819	215	4,276	1,848	3,016
Metallurgical/materials eng.	3,646	303	33	2,372	363	575
Nuclear engineering	708	118	17	392	64	117
Engineering, other	2,811	294	7	996	337	1,177
Total, health fields	39,412	2,353	4,243	4,531	2,963	25,322
Clinical fields	2,453	218	345	452	62	1,376
Dental sciences	1,235	114	92	50	189	790
Nursing	7,512	353	1,993	385	382	4,399
Pharmaceutical sciences	2,232	208	56	809	730	429
Preventive medicine/community health	5,437	378	483	671	150	3,755
Speech pathology/audiology	7,332	306	442	668	711	5,205
Veterinary sciences	972	41	44	358	128	401
Other health fields	12,239	735	788	1,138	611	8,967

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 41. Full-time graduate students in science and engineering fields in doctorate-granting institutions, by mechanism and source of support: 1990-97

Page 1 of 2

Mechanism and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Total, all types:								
Total, all sources	250,530	261,154	273,142	276,296	275,324	269,413	266,232	262,161
Federal, total	51,706	55,166	57,326	59,469	59,788	58,539	57,094	55,902
Dept. of Defense	8,425	8,640	8,753	9,220	8,951	8,834	8,317	8,568
Dept. of HHS, total	14,522	15,381	16,154	16,701	17,035	17,024	16,817	16,610
NIH	13,298	14,081	14,930	15,749	15,843	15,600	15,411	15,181
Other HHS	1,224	1,300	1,224	952	1,192	1,424	1,406	1,429
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	2,212	2,480
NSF	11,932	12,542	13,223	13,325	13,656	13,447	13,258	13,169
USDA	2,629	2,982	3,099	3,202	3,297	3,152	2,902	2,560
All other Federal	14,198	15,621	16,097	17,021	16,849	16,082	13,588	12,515
Institutional support	111,758	113,592	115,610	116,418	116,259	115,856	114,505	114,478
Other non-Federal support, total	24,431	25,185	25,717	24,615	24,990	23,535	22,904	22,782
All other U.S.	18,459	19,079	19,793	19,622	19,780	18,572	18,136	18,464
Foreign	5,972	6,106	5,924	4,993	5,210	4,963	4,768	4,318
Self-support	62,635	67,211	74,489	75,794	74,287	71,483	71,729	68,999
Fellowships:								
Total, all sources	23,080	24,575	26,293	26,679	26,337	26,234	25,899	25,945
Federal, total	5,749	6,782	7,102	6,870	6,250	6,226	6,304	6,136
Dept. of Defense	576	673	645	622	523	469	506	502
Dept. of HHS, total	741	807	979	1,017	1,040	1,155	1,133	1,214
NIH	665	711	863	903	909	954	954	989
Other HHS	76	96	116	114	131	201	179	225
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	398	349
NSF	2,075	2,218	2,339	2,256	2,263	2,305	2,439	2,300
USDA	103	102	110	110	106	116	101	123
All other Federal	2,254	2,982	3,029	2,865	2,318	2,181	1,727	1,648
Institutional support	11,788	12,081	13,129	13,711	13,663	14,020	14,097	14,890
Other non-Federal support, total	5,543	5,712	6,062	6,098	6,424	5,988	5,498	4,919
All other U.S.	3,431	3,511	3,764	3,652	4,019	3,764	3,362	3,076
Foreign	2,112	2,201	2,298	2,446	2,405	2,224	2,136	1,843
Self-support	N/A							
Traineeships:								
Total, all sources	9,958	10,287	9,852	10,082	10,137	10,429	10,197	9,472
Federal, total	4,840	5,400	5,472	5,678	5,774	5,596	5,484	5,120
Dept. of Defense	81	112	86	91	109	104	124	108
Dept. of HHS, total	4,026	4,372	4,362	4,344	4,465	4,335	4,250	3,968
NIH	3,716	4,072	4,081	4,160	4,178	3,978	3,984	3,787
Other HHS	310	300	281	184	287	357	266	181
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	65	76
NSF	45	80	104	161	256	333	428	379
USDA	53	33	28	42	36	17	24	23
All other Federal	635	803	892	1,040	908	807	593	566
Institutional support	4,382	4,191	3,608	3,540	3,497	4,154	4,157	3,753
Other non-Federal support, total	736	696	772	864	866	679	556	599
All other U.S.	497	511	565	575	646	484	374	450
Foreign	239	185	207	289	220	195	182	149
Self-support	N/A							
Research assistantships:								
Total, all sources	75,841	79,564	82,399	84,376	85,548	83,414	81,311	81,012
Federal, total	36,965	38,970	40,686	42,628	43,378	42,528	41,406	40,930
Dept. of Defense	5,355	5,414	5,667	6,158	6,121	6,177	5,887	6,248
Dept. of HHS, total	9,450	9,892	10,404	10,920	11,177	11,129	10,985	10,962
NIH	8,658	9,033	9,633	10,330	10,462	10,333	10,110	10,024
Other HHS	792	859	771	590	715	796	875	938
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	1,706	2,002
NSF	9,655	10,103	10,573	10,676	10,952	10,518	10,169	10,317
USDA	2,353	2,730	2,857	2,930	3,035	2,920	2,677	2,342
All other Federal	10,152	10,831	11,185	11,944	12,093	11,784	9,982	9,059
Institutional support	27,213	28,228	28,778	28,545	29,183	28,702	27,727	27,664
Other non-Federal support, total	11,663	12,366	12,935	13,203	12,987	12,184	12,178	12,418
All other U.S.	10,952	11,563	12,125	12,347	12,224	11,448	11,453	11,679
Foreign	711	803	810	856	763	736	725	739
Self-support	N/A							

See explanatory information, if any, and SOURCE at end of table.

Table 41. Full-time graduate students in science and engineering fields in doctorate-granting institutions, by mechanism and source of support: 1990-97

Page 2 of 2

Mechanism and source of support	1990	1991	1992	1993	1994	1995	1996	1997
Teaching assistantships:								
Total, all sources	60,519	60,583	61,154	62,842	62,068	61,186	60,836	60,096
Federal, total	508	390	547	741	627	624	720	713
Dept. of Defense	N/A							
Dept. of HHS, total	92	85	164	159	130	111	180	144
NIH	74	72	147	154	121	104	176	114
Other HHS	18	13	17	5	9	7	4	30
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	2	21
NSF	83	64	111	136	98	151	117	80
USDA	44	33	22	39	43	37	41	30
All other Federal	289	208	250	407	356	325	380	438
Institutional support	59,526	59,704	60,079	61,535	60,869	60,043	59,510	58,849
Other non-Federal support, total	485	489	528	566	572	519	606	534
All other U.S.	485	489	528	566	572	519	606	534
Foreign	N/A							
Self-support	N/A							
Other types of support:								
Total, all sources	81,132	86,145	93,444	92,317	91,234	88,150	87,989	85,636
Federal, total	3,644	3,624	3,519	3,552	3,759	3,565	3,180	3,003
Dept. of Defense	2,413	2,441	2,355	2,349	2,198	2,084	1,800	1,710
Dept. of HHS, total	213	225	245	261	223	294	269	322
NIH	185	193	206	202	173	231	187	267
Other HHS	28	32	39	59	50	63	82	55
NASA ¹	N/A	N/A	N/A	N/A	N/A	N/A	41	32
NSF	74	77	96	96	87	140	105	93
USDA	76	84	82	81	77	62	59	42
All other Federal	868	797	741	765	1,174	985	906	804
Institutional support	8,849	9,388	10,016	9,087	9,047	8,937	9,014	9,322
Other non-Federal support, total	6,004	5,922	5,420	3,884	4,141	4,165	4,066	4,312
All other U.S.	3,094	3,005	2,811	2,482	2,319	2,357	2,341	2,725
Foreign	2,910	2,917	2,609	1,402	1,822	1,808	1,725	1,587
Self-support	62,635	67,211	74,489	75,794	74,287	71,483	71,729	68,999

¹ Data for NASA were not collected separately prior to 1996.

KEY: N/A = Not applicable

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 42. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by sex, source of support, and field: 1997

Page 1 of 2

Sex and source of support	Total, all surveyed fields	Sciences								
		Sciences, total	Physical sciences	Earth, atmospheric, & ocean sciences	Mathematical sciences	Computer sciences	Agricultural sciences	Biological sciences	Psychology	Social sciences
Total										
Total, all sources	301,573	198,327	26,268	9,934	11,538	16,488	8,677	45,064	28,764	51,594
Federal, total	63,019	40,279	9,350	3,082	1,158	3,114	1,741	16,111	2,627	3,096
Dept. of Defense	8,876	3,850	1,031	364	361	1,411	39	358	110	176
Dept. of HHS, total	21,820	15,702	1,928	40	96	106	29	11,723	1,429	351
NIH	17,838	14,420	1,624	27	66	78	21	11,141	1,179	284
Other HHS	3,982	1,282	304	13	30	28	8	582	250	67
NASA	2,501	1,257	569	350	19	114	20	108	12	65
NSF	13,264	8,606	3,362	1,198	388	1,076	100	1,518	277	687
USDA	2,594	2,347	30	51	16	12	937	921	7	373
All other Federal	13,964	8,517	2,430	1,079	278	395	616	1,483	792	1,444
Institutional support	123,272	91,146	13,809	4,125	8,164	5,544	3,553	19,432	12,168	24,351
Other non-Federal, total	24,698	13,820	1,860	873	473	1,130	1,544	3,528	1,185	3,227
All other U.S.	19,893	10,918	1,646	689	296	974	1,208	3,010	1,128	1,967
Foreign	4,805	2,902	214	184	177	156	336	518	57	1,260
Self-support	90,584	53,082	1,249	1,854	1,743	6,700	1,839	5,993	12,784	20,920
Men										
Total, all sources	173,684	110,110	19,069	6,333	7,832	12,331	5,349	23,191	9,088	26,917
Federal, total	39,834	24,740	7,006	2,039	873	2,574	1,123	8,535	933	1,657
Dept. of Defense	7,410	3,108	859	280	316	1,205	29	213	65	141
Dept. of HHS, total	10,521	8,216	1,250	20	72	90	18	6,172	483	111
NIH	9,282	7,533	1,042	15	49	68	11	5,860	403	85
Other HHS	1,239	683	208	5	23	22	7	312	80	26
NASA	1,937	898	421	242	15	92	12	60	9	47
NSF	9,534	5,846	2,548	752	271	887	59	847	119	363
USDA	1,556	1,389	21	32	11	10	607	473	2	233
All other Federal	8,876	5,283	1,907	713	188	290	398	770	255	762
Institutional support	72,790	51,017	9,840	2,570	5,546	4,188	2,077	10,003	4,112	12,681
Other non-Federal, total	16,636	8,457	1,326	613	331	880	1,036	1,890	406	1,975
All other U.S.	13,165	6,417	1,155	473	196	756	781	1,596	380	1,080
Foreign	3,471	2,040	171	140	135	124	255	294	26	895
Self-support	44,424	25,896	897	1,111	1,082	4,689	1,113	2,763	3,637	10,604
Women										
Total, all sources	127,889	88,217	7,199	3,601	3,706	4,157	3,328	21,873	19,676	24,677
Federal, total	23,185	15,539	2,344	1,043	285	540	618	7,576	1,694	1,439
Dept. of Defense	1,466	742	172	84	45	206	10	145	45	35
Dept. of HHS, total	11,299	7,486	678	20	24	16	11	5,551	946	240
NIH	8,556	6,887	582	12	17	10	10	5,281	776	199
Other HHS	2,743	599	96	8	7	6	1	270	170	41
NASA	564	359	148	108	4	22	8	48	3	18
NSF	3,730	2,760	814	446	117	189	41	671	158	324
USDA	1,038	958	9	19	5	2	330	448	5	140
All other Federal	5,088	3,234	523	366	90	105	218	713	537	682
Institutional support	50,482	40,129	3,969	1,555	2,618	1,356	1,476	9,429	8,056	11,670
Other non-Federal, total	8,062	5,363	534	260	142	250	508	1,638	779	1,252
All other U.S.	6,728	4,501	491	216	100	218	427	1,414	748	887
Foreign	1,334	862	43	44	42	32	81	224	31	365
Self-support	46,160	27,186	352	743	661	2,011	726	3,230	9,147	10,316

See explanatory information, if any, and SOURCE at end of table.

Table 42. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by sex, source of support, and field: 1997

Page 2 of 2

Sex and source of support	Engineering									Health fields
	Engineering, total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical & materials engineering	Other engineering	
Total										
Total, all sources	63,834	2,505	5,713	10,891	18,301	4,910	10,174	3,646	7,694	39,412
Federal, total	15,623	1,127	1,622	1,769	4,338	588	2,559	1,468	2,152	7,117
Dept. of Defense	4,718	485	158	223	1,961	193	725	441	532	308
Dept. of HHS, total	908	6	137	47	113	36	109	21	439	5,210
NIH	761	3	121	41	68	30	70	9	419	2,657
Other HHS	147	3	16	6	45	6	39	12	20	2,553
NASA	1,223	355	77	121	214	21	282	70	83	21
NSF	4,563	109	705	521	1,324	143	832	509	420	95
USDA	213	0	25	40	14	1	12	4	117	34
All other Federal	3,998	172	520	817	712	194	599	423	561	1,449
Institutional support	23,332	689	2,202	4,645	6,541	1,672	3,845	1,100	2,638	8,794
Other non-Federal, total	8,962	274	1,128	1,064	2,781	501	1,438	647	1,129	1,916
All other U.S.	7,546	214	948	844	2,445	404	1,270	566	855	1,429
Foreign	1,416	60	180	220	336	97	168	81	274	487
Self-support	15,917	415	761	3,413	4,641	2,149	2,332	431	1,775	21,585
Men										
Total, all sources	51,761	2,205	4,376	8,085	15,626	3,856	8,929	2,794	5,890	11,813
Federal, total	12,826	997	1,236	1,299	3,750	479	2,214	1,167	1,684	2,268
Dept. of Defense	4,148	450	135	185	1,735	172	641	362	468	154
Dept. of HHS, total	668	5	106	26	93	20	83	17	318	1,637
NIH	557	2	91	22	56	17	57	8	304	1,192
Other HHS	111	3	15	4	37	3	26	9	14	445
NASA	1,022	308	55	102	185	15	241	50	66	17
NSF	3,646	90	515	371	1,135	116	711	394	314	42
USDA	150	0	17	24	12	1	12	3	81	17
All other Federal	3,192	144	408	591	590	155	526	341	437	401
Institutional support	18,817	596	1,684	3,439	5,631	1,291	3,381	820	1,975	2,956
Other non-Federal, total	7,374	247	868	828	2,365	410	1,282	492	882	805
All other U.S.	6,183	193	732	643	2,089	328	1,130	426	642	565
Foreign	1,191	54	136	185	276	82	152	66	240	240
Self-support	12,744	365	588	2,519	3,880	1,676	2,052	315	1,349	5,784
Women										
Total, all sources	12,073	300	1,337	2,806	2,675	1,054	1,245	852	1,804	27,599
Federal, total	2,797	130	386	470	588	109	345	301	468	4,849
Dept. of Defense	570	35	23	38	226	21	84	79	64	154
Dept. of HHS, total	240	1	31	21	20	16	26	4	121	3,573
NIH	204	1	30	19	12	13	13	1	115	1,465
Other HHS	36	0	1	2	8	3	13	3	6	2,108
NASA	201	47	22	19	29	6	41	20	17	4
NSF	917	19	190	150	189	27	121	115	106	53
USDA	63	0	8	16	2	0	0	1	36	17
All other Federal	806	28	112	226	122	39	73	82	124	1,048
Institutional support	4,515	93	518	1,206	910	381	464	280	663	5,838
Other non-Federal, total	1,588	27	260	236	416	91	156	155	247	1,111
All other U.S.	1,363	21	216	201	356	76	140	140	213	864
Foreign	225	6	44	35	60	15	16	15	34	247
Self-support	3,173	50	173	894	761	473	280	116	426	15,801

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 43. Full-time graduate science, engineering, and health students with U.S. citizenship
in doctorate-granting institutions, by detailed field: 1990-97**

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	187,409	195,349	208,126	217,062	221,979	221,188	219,425	215,724
Total, science and engineering fields	165,955	172,349	183,096	189,382	191,491	188,482	185,277	180,140
Sciences, total	132,640	136,488	144,548	149,567	151,797	151,289	149,967	146,482
Physical sciences, total	17,488	17,865	18,397	18,813	18,640	17,931	17,206	16,377
Astronomy	603	598	621	638	694	646	642	584
Chemistry	10,003	10,144	10,518	10,861	10,891	10,650	10,466	10,108
Physics	6,805	7,041	7,163	7,233	6,941	6,503	5,980	5,591
Physical sciences, n.e.c.	77	82	95	81	114	132	118	94
Earth, atmos., & ocean sci., total	7,477	7,399	7,867	8,165	8,067	8,176	7,889	7,738
Atmospheric sciences	564	569	651	706	731	708	709	684
Geosciences	4,287	4,157	4,224	4,295	4,232	4,220	4,102	4,054
Oceanography	1,355	1,368	1,502	1,575	1,602	1,605	1,531	1,455
Earth, atmos., & ocean sci., n.e.c.	1,271	1,305	1,490	1,589	1,502	1,643	1,547	1,545
Mathematical sciences	7,571	7,949	8,481	8,554	8,312	7,777	7,396	6,832
Computer sciences	7,874	7,606	8,008	8,145	8,007	7,857	7,538	7,621
Agricultural sciences	5,958	6,089	6,305	6,323	6,351	6,430	6,347	6,338
Biological sciences, total	29,104	29,830	31,168	32,856	34,554	35,407	35,446	34,959
Anatomy	709	720	723	738	761	738	825	820
Biochemistry	3,187	3,225	3,314	3,409	3,516	3,598	3,518	3,424
Biology	6,395	6,546	6,678	6,920	7,065	6,948	6,935	7,108
Biometry/epidemiology	889	983	1,147	1,448	1,523	1,593	1,694	1,569
Biophysics	407	433	479	541	562	602	632	558
Botany	1,510	1,439	1,474	1,534	1,607	1,507	1,501	1,439
Cell biology	1,950	2,097	2,269	2,459	2,744	2,903	2,894	2,889
Ecology	727	758	844	875	1,026	1,122	1,096	1,053
Entomology/parasitology	699	679	712	718	743	709	742	736
Genetics	965	1,065	1,148	1,274	1,205	1,232	1,242	1,235
Microbio., immunology, & virology	3,217	3,210	3,306	3,372	3,452	3,538	3,504	3,457
Nutrition	1,737	1,714	1,712	1,730	1,980	2,162	2,289	2,180
Pathology	776	773	818	927	1,027	1,032	1,022	1,139
Pharmacology	1,652	1,672	1,717	1,887	2,045	2,000	1,943	1,910
Physiology	1,495	1,525	1,528	1,623	1,647	1,867	1,797	1,701
Zoology	1,382	1,452	1,474	1,482	1,440	1,513	1,415	1,330
Biosciences, n.e.c.	1,407	1,539	1,825	1,919	2,211	2,343	2,397	2,411
Psychology	24,207	25,070	26,286	26,820	26,918	26,980	27,233	27,269
Social sciences, total	32,961	34,680	38,036	39,891	40,948	40,731	40,912	39,348
Agricultural economics	1,024	1,041	1,097	1,048	1,083	1,056	962	881
Anthropology (cultural & social)	4,035	4,272	4,516	4,661	5,051	5,085	5,280	5,032
Economics (except agricultural)	4,550	4,927	5,147	5,251	5,206	4,885	4,500	3,906
Geography	1,757	1,933	2,150	2,340	2,447	2,350	2,364	2,287
Linguistics	1,501	1,467	1,455	1,555	1,533	1,517	1,577	1,453
Political science	11,322	11,877	13,435	14,207	13,904	13,485	13,238	12,709
Sociology	4,069	4,340	4,834	5,056	5,280	5,392	5,267	5,253
Sociology/anthropology	573	474	515	541	574	542	525	559
Social sciences, other	4,130	4,349	4,887	5,232	5,870	6,419	7,199	7,268
Engineering, total	33,315	35,861	38,548	39,815	39,694	37,193	35,310	33,658
Aerospace engineering	1,834	2,137	2,210	2,144	1,834	1,592	1,402	1,312
Agricultural engineering	330	330	377	403	438	414	393	397
Biomedical engineering	1,184	1,246	1,423	1,544	1,534	1,623	1,657	1,767
Chemical engineering	2,657	2,784	2,926	3,084	3,336	3,275	3,342	3,223
Civil engineering	5,197	5,891	6,683	7,084	7,481	7,246	7,147	6,690
Electrical engineering	9,275	9,576	10,155	10,006	9,997	8,982	8,387	8,177
Engineering science	734	767	795	822	829	823	628	618
Industrial/manufacturing eng.	2,188	2,639	2,945	3,068	3,025	2,696	2,397	2,281
Mechanical engineering	5,644	5,992	6,651	7,075	6,934	6,427	5,875	5,417
Metallurgical/materials eng.	1,976	2,057	2,239	2,253	2,315	2,147	1,956	1,885
Nuclear engineering	577	590	611	634	618	536	487	434
Engineering, other	1,719	1,852	1,533	1,698	1,353	1,432	1,639	1,457
Total, health fields	21,454	23,000	25,030	27,680	30,488	32,706	34,148	35,584
Clinical fields	1,176	1,368	1,502	1,665	1,834	1,919	2,002	2,238
Dental sciences	643	652	760	769	838	856	835	928
Nursing	5,386	5,444	5,425	5,748	6,495	6,927	6,953	7,217
Pharmaceutical sciences	1,189	1,214	1,100	1,176	1,317	1,195	1,173	1,170
Preventive medicine/community health	3,498	3,410	3,912	4,375	4,620	5,129	4,900	4,684
Speech pathology/audiology	4,393	4,820	5,364	5,942	6,303	6,417	6,835	7,068
Veterinary sciences	501	487	515	459	474	481	459	705
Other health fields	4,668	5,605	6,452	7,546	8,607	9,782	10,991	11,574

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 44. Full-time graduate science, engineering, and health students without U.S. citizenship
in doctorate-granting institutions, by detailed field: 1990-97**

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	88,024	92,460	93,646	90,631	87,350	84,471	84,809	85,849
Total, science and engineering fields	84,575	88,805	90,046	86,914	83,833	80,931	80,955	82,021
Sciences, total	53,854	55,600	56,373	55,061	54,028	52,296	52,198	51,845
Physical sciences, total	11,367	11,588	11,677	11,133	10,721	10,302	10,111	9,891
Astronomy	187	212	219	210	259	225	212	184
Chemistry	5,984	6,193	6,136	5,939	5,810	5,688	5,607	5,475
Physics	5,172	5,157	5,289	4,947	4,602	4,347	4,263	4,204
Physical sciences, n.e.c.	24	26	33	37	50	42	29	28
Earth, atmos., & ocean sci., total	2,381	2,524	2,618	2,634	2,817	2,552	2,366	2,196
Atmospheric sciences	264	288	307	272	250	248	268	280
Geosciences	1,325	1,378	1,484	1,504	1,544	1,388	1,292	1,167
Oceanography	532	563	559	555	661	578	507	469
Earth, atmos., & ocean sci., n.e.c.	260	295	268	303	362	338	299	280
Mathematical sciences	5,698	5,678	5,535	5,290	5,187	4,966	4,928	4,706
Computer sciences	7,024	7,264	7,761	7,682	7,382	7,359	8,095	8,867
Agricultural sciences	2,790	2,784	2,804	2,779	2,781	2,726	2,535	2,339
Biological sciences, total	10,491	11,452	11,664	11,803	11,656	11,028	10,391	10,105
Anatomy	202	241	237	239	222	240	217	213
Biochemistry	1,623	1,715	1,716	1,729	1,685	1,567	1,431	1,352
Biology	1,642	1,746	1,766	1,714	1,629	1,614	1,604	1,692
Biometry/epidemiology	342	448	487	542	533	500	468	436
Biophysics	198	246	249	214	208	198	175	170
Botany	831	847	805	817	738	639	627	610
Cell biology	535	619	692	727	848	789	775	760
Ecology	151	150	132	165	161	154	143	131
Entomology/parasitology	298	335	304	321	323	332	285	259
Genetics	290	306	340	366	348	340	363	385
Microbio., immunology, & virology	1,144	1,191	1,139	1,228	1,246	1,128	1,027	951
Nutrition	1,036	1,109	1,062	1,180	1,092	1,110	1,007	947
Pathology	279	312	320	337	332	318	317	279
Pharmacology	570	632	680	612	627	529	556	536
Physiology	581	638	632	597	574	509	420	402
Zoology	289	308	294	261	272	228	210	183
Biosciences, n.e.c.	480	609	809	754	818	833	766	799
Psychology	1,385	1,497	1,497	1,458	1,642	1,498	1,472	1,495
Social sciences, total	12,718	12,813	12,817	12,282	11,842	11,865	12,300	12,246
Agricultural economics	910	935	972	862	809	892	797	816
Anthropology (cultural & social)	695	715	715	671	667	577	586	592
Economics (except agricultural)	4,487	4,616	4,669	4,526	4,448	4,517	4,732	4,615
Geography	418	392	417	420	384	391	393	427
Linguistics	1,051	1,043	946	892	887	865	856	819
Political science	2,610	2,668	2,669	2,653	2,507	2,537	2,836	2,719
Sociology	1,355	1,266	1,246	1,111	1,015	892	898	945
Sociology/anthropology	133	109	97	72	70	75	65	72
Social sciences, other	1,059	1,069	1,086	1,075	1,055	1,119	1,137	1,241
Engineering, total	30,721	33,205	33,673	31,853	29,805	28,635	28,757	30,176
Aerospace engineering	1,112	1,121	1,059	1,083	1,133	1,076	1,143	1,193
Agricultural engineering	469	493	463	432	441	445	406	351
Biomedical engineering	577	654	715	690	712	654	624	644
Chemical engineering	2,763	2,969	2,974	2,918	2,718	2,630	2,514	2,490
Civil engineering	4,680	5,101	5,333	4,898	4,694	4,535	4,234	4,201
Electrical engineering	8,682	9,623	10,077	9,663	8,722	8,587	9,002	10,124
Engineering science	507	590	613	573	514	418	426	398
Industrial/manufacturing eng.	2,300	2,758	2,898	2,614	2,660	2,408	2,563	2,629
Mechanical engineering	4,945	5,423	5,428	5,053	4,708	4,506	4,562	4,757
Metallurgical/materials eng.	1,934	1,981	2,016	1,973	1,769	1,717	1,731	1,761
Nuclear engineering	503	490	473	436	379	347	284	274
Engineering, other	2,249	2,002	1,624	1,520	1,355	1,312	1,268	1,354
Total, health fields	3,449	3,655	3,600	3,717	3,517	3,540	3,854	3,828
Clinical fields	272	314	371	383	356	252	232	215
Dental sciences	184	223	228	236	210	240	281	307
Nursing	182	230	202	227	275	284	242	295
Pharmaceutical sciences	959	984	974	954	871	957	1,052	1,062
Preventive medicine/community health	964	961	838	865	722	721	788	753
Speech pathology/audiology	264	280	288	299	292	248	258	264
Veterinary sciences	197	219	228	214	205	238	263	267
Other health fields	427	444	471	539	586	600	738	665

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

Page 1 of 6

Institutional ranking	1990	1991	1992	1993	1994	1995	1996	1997
Total, all institutions	352,804	365,499	380,923	384,986	381,554	372,994	366,805	359,476
1 University of Michigan	4,742	4,772	5,069	5,094	5,067	4,890	4,966	4,665
2 Texas A&M University	4,871	4,962	5,250	5,117	4,788	4,526	4,752	4,620
3 University of Wisconsin-Madison	5,073	5,257	5,412	5,466	5,294	5,044	4,698	4,507
4 University of Minnesota	5,019	5,148	5,168	5,316	5,072	4,836	4,713	4,487
5 Univ of Illinois at Urbana-Champaign	4,814	4,825	4,929	4,998	4,885	4,920	4,573	4,389
6 University of Calif at Berkeley	4,715	4,516	4,559	4,481	4,430	4,460	4,453	4,345
7 Stanford University	4,209	4,294	4,490	4,661	4,495	4,526	4,510	4,322
8 University of Southern California	5,266	5,171	5,399	5,260	4,546	4,272	4,126	4,259
9 University of Colorado	3,636	3,834	4,175	4,220	4,009	4,067	4,307	4,162
10 Massachusetts Institute of Technology	4,280	4,308	4,342	4,382	4,343	4,206	4,168	4,074
Total, 1st 10 institutions	46,625	47,087	48,793	48,995	46,929	45,747	45,266	43,830
11 Pennsylvania State University	4,128	4,244	4,250	4,261	4,223	4,271	4,054	3,951
12 University of Maryland - College Park	3,856	3,812	3,899	3,972	4,008	4,024	4,026	3,880
13 University of Texas at Austin	4,306	4,559	4,715	4,722	4,550	4,199	3,529	3,864
14 George Washington University	4,138	4,207	4,584	4,517	4,532	4,305	4,150	3,851
15 Ohio State University	4,371	4,596	4,607	4,671	4,420	4,332	4,053	3,764
16 University of Washington	3,737	3,876	3,783	3,748	3,764	3,757	3,639	3,734
17 North Carolina State University	3,004	3,035	3,230	3,034	3,342	3,405	3,492	3,553
18 Rutgers the State Univ of New Jersey	3,938	3,991	3,975	3,920	3,867	3,802	3,645	3,459
19 Purdue University	3,645	3,739	3,871	3,871	3,854	3,718	3,566	3,436
20 Virginia Polytechnic Inst and State Univ	3,194	3,158	3,326	3,381	3,298	3,506	3,572	3,419
Total, 1st 20 institutions	84,942	86,304	89,033	89,092	86,787	85,066	82,992	80,741
21 Georgia Institute of Technology	2,972	3,326	3,548	3,649	3,688	3,540	3,472	3,412
22 University of California, Los Angeles	3,140	3,211	3,271	3,448	3,832	3,626	3,551	3,412
23 University of Florida	3,052	3,224	3,471	3,583	3,502	3,427	3,400	3,411
24 Cornell University	3,323	3,376	3,700	3,707	3,683	3,640	3,495	3,225
25 Arizona State University	2,750	2,893	3,156	3,154	3,077	3,080	3,084	3,100
26 Harvard University	2,839	3,032	3,253	3,244	3,231	3,185	3,097	3,024
27 Louisiana State University	2,467	2,738	2,916	3,036	3,127	3,184	3,133	3,003
28 Indiana University	3,034	3,255	3,458	3,597	3,530	3,505	3,349	2,963
29 George Mason University	2,051	2,102	2,218	2,566	2,682	3,101	2,922	2,930
30 Michigan State University	2,828	2,906	3,093	3,171	3,064	3,005	2,981	2,862
Total, 1st 30 institutions	113,398	116,367	121,117	122,247	120,203	118,359	115,476	112,083
31 University of Arizona	3,126	3,146	3,203	3,248	3,227	3,004	2,898	2,851
32 New York University	2,567	2,702	2,847	2,833	2,668	2,606	2,886	2,791
33 University of Kansas	1,781	1,919	2,015	2,027	2,551	2,459	2,826	2,718
34 University of Pittsburgh	2,696	2,749	3,081	3,067	3,119	2,946	2,761	2,693
35 University of Massachusetts	2,617	2,629	2,626	2,675	2,758	2,757	2,697	2,671
36 Iowa State University	2,707	2,768	2,817	2,876	2,799	2,676	2,693	2,608
37 University of Calif at Davis	2,699	2,563	2,584	2,554	2,495	2,425	2,473	2,529
38 SUNY at Buffalo	2,747	2,871	2,882	2,911	2,784	2,679	2,527	2,443
39 Boston University	2,086	2,162	2,220	2,376	2,496	2,442	2,446	2,407
40 Columbia Univ in the City of New York	2,382	2,413	2,448	2,397	2,411	2,309	2,442	2,385
Total, 1st 40 institutions	138,806	142,289	147,840	149,211	147,511	144,662	142,125	138,179
41 Wayne State University	2,592	2,653	2,786	2,925	2,910	2,694	2,420	2,385
42 University of Illinois at Chicago	2,296	2,341	2,404	2,307	2,160	2,088	2,097	2,217
43 Univ of North Carolina at Chapel Hill	2,236	2,180	2,350	2,375	2,344	2,282	2,269	2,175
44 Illinois Institute of Technology	1,776	1,818	1,916	2,079	1,913	1,542	2,138	2,058
45 SUNY at Albany	1,229	1,328	1,791	1,884	1,760	1,665	2,038	2,056
46 CUNY Graduate School and Univ Center	1,991	1,776	1,795	1,664	1,699	1,573	1,529	2,022
47 American University	1,559	1,656	2,042	2,305	2,280	2,166	2,034	1,951
48 University of Cincinnati	2,084	2,223	2,161	2,175	2,233	2,267	2,183	1,945
49 University of Chicago	1,998	1,859	2,075	2,046	2,153	2,070	1,954	1,941
50 University of Tennessee at Knoxville	2,312	2,358	2,458	2,489	2,489	2,283	2,082	1,937
Total, 1st 50 institutions	158,879	162,481	169,618	171,460	169,452	165,292	162,869	158,866
51 University of Pennsylvania	2,465	2,477	2,472	2,456	2,360	2,386	2,104	1,926
52 Teachers College, Columbia University	1,441	1,528	1,533	1,629	1,661	1,741	1,842	1,906
53 SUNY at Stony Brook	1,843	1,955	2,128	2,131	2,142	2,108	1,953	1,892
54 University of Connecticut	1,980	2,024	2,186	2,218	2,102	2,081	2,004	1,881
55 New Jersey Institute of Technology	2,283	1,848	1,820	1,742	1,664	1,711	1,705	1,874
56 University of Houston	2,249	2,920	2,969	2,785	1,985	1,844	1,826	1,858
57 University of Calif at San Diego	1,680	1,804	1,795	1,798	1,781	1,814	1,812	1,846
58 University of Georgia	1,501	1,598	1,702	1,781	1,855	1,837	1,798	1,818
59 Colorado State University	1,649	1,793	1,882	1,973	1,956	1,927	1,751	1,770
60 Carnegie Mellon University	1,671	1,668	1,684	1,664	1,628	1,648	1,700	1,763
Total, 1st 60 institutions	177,641	182,096	189,789	191,637	188,586	184,389	181,364	177,400

See explanatory information, if any, and SOURCE at end of table.

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

Page 2 of 6

Institutional ranking	1990	1991	1992	1993	1994	1995	1996	1997
61 DePaul University	1,315	1,381	1,359	1,435	1,460	1,467	1,640	1,743
62 Northeastern University	1,951	2,058	2,094	2,036	1,973	1,815	1,801	1,741
63 Johns Hopkins University	1,167	1,249	1,377	1,389	1,610	1,645	1,677	1,734
64 Oklahoma State University	1,704	1,794	1,823	1,773	1,747	1,785	1,719	1,718
65 Nova Southeastern University	1,034	1,140	1,237	1,503	1,778	1,808	1,712	1,710
66 University of South Florida	1,490	1,526	1,710	1,844	1,743	1,744	1,699	1,700
67 Kansas State University	1,495	1,540	1,618	1,732	1,781	1,777	1,709	1,679
68 University of Virginia	1,830	1,874	1,915	1,923	1,878	1,798	1,731	1,669
69 University of Kentucky	1,572	1,626	1,754	1,731	1,800	1,791	1,708	1,657
70 Oregon State University	1,715	1,759	1,761	1,904	1,887	1,891	1,796	1,651
Total, 1st 70 institutions	192,914	198,043	206,437	208,907	206,243	201,910	198,556	194,402
71 University of Nebraska - Lincoln	1,532	1,721	1,879	1,979	1,982	1,833	1,758	1,624
72 Rensselaer Polytechnic Institute	1,852	2,036	2,040	2,024	1,933	1,694	1,508	1,623
73 University of New Mexico	1,591	1,625	1,674	1,862	1,817	1,819	1,735	1,607
74 University of Hawaii at Manoa	1,626	1,719	1,667	1,747	1,843	1,763	1,734	1,598
75 Clemson University	1,449	1,729	1,910	1,830	1,757	1,686	1,658	1,596
76 Drexel University	1,410	1,534	1,431	1,400	1,534	1,405	1,425	1,594
77 University of Utah	1,602	1,627	1,701	1,695	1,684	1,814	1,690	1,586
78 University of Missouri-Columbia	1,742	1,811	1,821	1,842	1,789	1,743	1,605	1,552
79 University of Oklahoma	1,786	1,846	2,015	1,953	1,774	1,703	1,732	1,547
80 Auburn University	1,595	1,732	1,772	1,887	1,854	1,849	1,687	1,529
Total, 1st 80 institutions	209,099	215,423	224,347	227,126	224,210	219,219	215,088	210,258
81 Northwestern University	1,738	1,800	1,843	1,799	1,719	1,645	1,638	1,516
82 University of Massachusetts Lowell	1,841	1,796	1,764	1,552	1,679	1,783	1,646	1,515
83 University of Central Florida	1,066	1,218	1,352	1,457	1,615	524	1,579	1,510
84 University of Iowa	1,721	1,795	1,726	1,746	1,714	1,687	1,601	1,505
85 University of Texas at Arlington	1,743	1,865	1,936	1,945	1,810	1,609	1,554	1,463
86 University of South Carolina	1,453	1,466	1,590	1,660	1,649	1,604	1,448	1,450
87 Case Western Reserve University	1,477	1,398	1,439	1,423	1,447	1,422	1,426	1,433
88 Western Michigan University	1,352	1,536	1,543	1,566	1,548	1,326	1,311	1,417
89 West Virginia University	1,154	1,234	1,320	1,443	1,409	1,324	1,285	1,414
90 University of Calif at Santa Barbara	1,475	1,482	1,526	1,394	1,439	1,444	1,439	1,412
Total, 1st 90 institutions	224,119	231,013	240,386	243,111	240,239	233,587	230,015	224,893
91 University of Delaware	1,291	1,396	1,429	1,497	1,505	1,493	1,409	1,377
92 Polytechnic University	1,903	1,600	1,649	1,559	1,438	1,505	1,427	1,372
93 University of Akron	1,315	1,314	1,348	1,321	1,320	1,344	1,369	1,361
94 Syracuse University	1,913	1,928	2,042	1,823	1,817	1,518	1,516	1,341
95 Duke University	1,322	1,333	1,335	1,363	1,361	1,337	1,310	1,337
96 University of Wisconsin-Milwaukee	1,544	1,625	1,586	1,538	1,484	1,427	1,384	1,327
97 Stevens Institute of Technology	1,333	1,313	1,335	1,416	1,360	1,305	1,390	1,326
98 Yale University	1,693	1,620	1,581	1,561	1,549	1,539	1,456	1,322
99 Antioch University	1,146	1,531	1,617	1,532	1,590	1,474	1,430	1,320
100 California State University, Long Beach	1,860	1,940	1,883	1,682	1,486	1,428	1,383	1,317
Total, 1st 100 institutions	239,439	246,613	256,191	258,403	255,149	247,957	244,089	238,293
101 University of California, Irvine	1,239	1,306	1,445	1,493	1,442	1,392	1,357	1,309
102 Florida State University	1,381	1,360	1,335	1,377	1,402	1,506	1,389	1,306
103 University of North Texas	1,109	1,043	1,329	1,308	1,287	1,230	1,205	1,297
104 Texas Tech University	1,254	1,371	1,541	1,487	1,432	1,343	1,264	1,294
105 Old Dominion University	1,036	1,100	1,077	1,244	1,232	1,237	1,248	1,274
106 Southern Methodist University	901	815	950	997	1,031	1,131	1,222	1,260
107 San Diego State University	1,316	1,371	1,499	1,544	1,473	1,148	1,277	1,246
108 Princeton University	1,334	1,374	1,379	1,367	1,298	1,307	1,266	1,240
109 Washington State University	1,159	1,255	1,306	1,359	1,421	1,450	1,391	1,228
110 Washington University	1,456	1,353	1,390	1,361	1,339	1,308	1,226	1,196
Total, 1st 110 institutions	251,624	258,961	269,442	271,940	268,506	261,009	256,934	250,943
111 Brigham Young University	586	927	1,016	1,069	1,193	1,154	1,188	1,179
112 Southern Illinois Univ at Carbondale	1,326	1,365	1,305	1,326	1,304	1,282	1,213	1,154
113 Mississippi State University	1,074	1,151	1,150	1,210	1,165	1,119	1,132	1,149
114 University of Idaho	1,048	1,068	1,063	1,115	1,145	1,081	1,018	1,149
115 Utah State University	1,170	1,187	1,272	1,363	1,370	1,337	1,229	1,143
116 University of Texas at Dallas	1,058	980	1,002	1,017	946	944	1,033	1,134
117 Vanderbilt University	950	965	970	1,026	1,117	1,137	1,154	1,129
118 University of Rochester	1,325	1,349	1,361	1,372	1,305	1,226	1,146	1,097
119 SUNY at Binghamton	1,099	1,142	1,141	1,129	1,132	1,093	1,072	1,093
120 New Mexico State University	883	956	1,271	1,295	1,239	1,208	1,168	1,090
Total, 1st 120 institutions	262,143	270,051	280,993	283,862	280,422	272,590	268,287	262,260

See explanatory information, if any, and SOURCE at end of table.

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

Page 3 of 6

Institutional ranking	1990	1991	1992	1993	1994	1995	1996	1997
121 Univ of Puerto Rico Rio Piedras Campus	1,100	1,008	1,096	1,138	1,129	1,083	1,065	1,086
122 Long Island University	745	862	1,112	1,142	1,041	1,137	1,089	1,069
123 University of Arkansas Main	911	943	1,027	1,202	1,225	1,321	1,236	1,062
124 New School for Social Research	984	908	1,164	1,029	1,032	1,008	1,031	1,060
125 Tufts University	888	927	999	1,044	1,061	1,008	1,062	1,052
126 Florida International University	644	740	783	856	1,036	1,083	1,046	1,041
127 University of Alabama, The	794	882	934	974	963	985	1,070	1,040
128 University of Memphis	819	851	832	885	927	873	757	1,037
129 Northern Illinois University	933	1,023	1,025	1,065	1,097	1,109	1,055	1,034
130 Georgia State University	943	950	1,025	999	1,097	1,102	1,024	1,032
Total, 1st 130 institutions	270,904	279,145	290,990	294,196	291,030	283,299	278,722	272,773
131 California Institute of Technology	1,088	1,125	1,152	1,131	1,087	1,073	1,022	1,031
132 Lehigh University	764	1,022	1,114	1,099	1,085	999	1,072	1,030
133 University of Alabama at Birmingham, The	722	759	792	827	815	789	920	1,028
134 Virginia Commonwealth University	1,173	1,144	1,160	1,157	1,139	1,213	1,146	1,022
135 University of Miami	1,062	1,150	1,189	1,196	1,252	1,172	1,095	1,012
136 Portland State University	832	968	1,032	1,026	1,061	1,009	1,026	1,001
137 Temple University	1,078	1,189	1,164	1,241	1,163	1,078	1,264	979
138 University of Louisville	1,049	1,084	1,132	1,122	1,125	1,099	1,095	963
139 Santa Clara University	1,293	1,222	1,226	1,144	952	945	927	956
140 University of Nevada, Reno	766	825	922	911	956	963	918	956
Total, 1st 140 institutions	280,731	289,633	301,873	305,050	301,665	293,639	289,207	282,751
141 Fielding Institute, The	473	478	475	513	484	899	905	948
142 Ohio University	940	959	970	942	927	921	928	940
143 University of Toledo	668	695	742	754	750	818	863	925
144 University of Missouri-Rolla	1,224	1,261	1,216	1,144	1,021	1,016	914	886
145 New York Institute of Technology	939	887	1,025	997	961	1,013	960	872
146 US Naval Postgraduate School	1,377	1,329	1,305	1,280	1,195	1,049	927	872
147 Univ of Maryland - Baltimore County	895	1,015	1,040	1,052	1,035	1,027	964	869
148 Wichita State University	645	643	742	712	705	761	812	865
149 Florida Atlantic University	695	822	940	1,006	980	929	895	857
150 Wright State University	760	893	909	864	815	845	873	851
Total, 1st 150 institutions	289,347	298,615	311,237	314,314	310,538	302,917	298,348	291,636
151 University of Notre Dame	799	804	872	868	855	859	873	846
152 University of Wyoming	734	820	835	877	877	818	761	846
153 Oakland University	616	678	665	700	706	803	819	841
154 Fairleigh Dickinson University	912	1,005	1,070	1,020	849	841	871	836
155 Loyola University of Chicago	570	610	633	645	701	794	832	831
156 Kent State University	778	807	830	806	811	849	799	824
157 University of Rhode Island	1,100	1,095	1,149	1,148	1,129	1,096	900	800
158 University of Calif at Riverside	711	733	757	763	729	795	757	785
159 Cleveland State University	1,044	1,142	1,141	1,160	1,151	1,122	758	774
160 Colorado School of Mines	679	781	889	869	851	806	778	765
Total, 1st 160 institutions	297,290	307,090	320,078	323,170	319,197	311,700	306,496	299,784
161 University of New Hampshire	611	634	669	687	660	689	795	757
162 Florida Institute of Technology	725	882	904	828	801	754	756	743
163 Pepperdine University	731	935	1,040	1,084	1,039	943	806	739
164 Rice University	800	825	852	844	811	752	723	737
165 Univ of Puerto Rico Mayaguez Campus	358	439	495	524	520	582	663	727
166 University of Denver	937	944	809	831	858	808	768	727
167 Villanova University	844	959	938	884	857	758	702	727
168 Tulane University	636	751	824	860	897	834	829	726
169 University of Calif at Santa Cruz	608	628	671	690	717	732	732	726
170 Calif Sch of Prof Psych - Los Angeles	585	534	495	537	541	361	280	725
Total, 1st 170 institutions	304,125	314,621	327,775	330,939	326,898	318,913	313,550	307,118
171 Georgetown University	609	633	690	693	744	746	716	722
172 Brown University	769	781	847	797	766	760	733	717
173 Claremont Graduate School	511	552	573	613	683	659	684	712
174 Emory University	595	549	595	649	685	719	713	711
175 Howard University	832	739	657	677	761	741	727	698
176 University of Alabama in Huntsville, The	934	1,018	939	1,012	926	819	706	697
177 University of Oregon	776	822	845	787	778	771	703	675
178 Calif Sch of Prof Psych - San Diego	519	617	592	643	582	573	618	642
179 University of Mississippi	620	661	661	659	714	700	682	631
180 Marquette University	620	620	596	578	600	556	591	626
Total, 1st 180 institutions	310,910	321,613	334,770	338,047	334,137	325,957	320,423	313,949

See explanatory information, if any, and SOURCE at end of table.

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

Page 4 of 6

Institutional ranking	1990	1991	1992	1993	1994	1995	1996	1997
181 Southwest Texas State University	559	600	626	656	689	703	698	624
182 Worcester Polytechnic Institute	725	865	704	712	711	634	603	596
183 Yeshiva University	565	607	609	561	571	585	579	594
184 Univ of Texas Hlth Sci Ctr at Houston	400	428	495	499	541	560	588	584
185 University of Maine	660	706	811	783	757	737	666	584
186 University of Southern Mississippi	480	442	444	462	548	634	604	582
187 University of Texas at El Paso	624	656	755	667	660	578	588	579
188 Bowling Green State University	538	556	591	659	667	708	609	573
189 University of Alaska Fairbanks	487	480	571	603	627	600	587	571
190 Pace University	885	855	791	845	808	564	829	564
Total, 1st 190 institutions	316,833	327,808	341,167	344,494	340,716	332,260	326,774	319,800
191 Rochester Institute of Technology	857	952	1,006	896	776	623	621	560
192 University of Montana	493	520	588	601	588	593	550	552
193 Montana State University-Bozeman	451	482	559	626	605	594	569	551
194 University of Dayton	804	788	739	804	788	651	635	551
195 Brandeis University	416	428	432	465	473	524	565	549
196 Illinois State University	453	505	550	544	514	549	564	547
197 Seton Hall University	154	396	413	430	394	610	577	546
198 Marshall University	177	204	198	204	224	250	264	544
199 Michigan Technological University	464	483	510	554	573	584	555	543
200 University of Vermont	594	623	648	632	629	680	570	538
Total, 1st 200 institutions	321,696	333,189	346,810	350,250	346,280	337,918	332,244	325,281
201 North Dakota State University	549	599	616	590	606	589	584	536
202 Texas Woman's University	591	510	518	498	508	503	573	526
203 Catholic University of America	736	684	736	739	672	602	598	518
204 Northern Arizona University	817	783	763	572	587	572	549	517
205 University of Nebraska - Omaha	474	559	630	631	595	535	526	514
206 Allegheny Univ. of the Health Sciences	340	387	396	409	422	513	482	510
207 University of Nevada at Las Vegas	266	357	421	495	531	567	521	510
208 Air Force Institute of Technology	653	589	588	550	481	514	533	504
209 Golden Gate University	354	192	215	157	331	476	381	488
210 Texas A&M University-Kingsville	262	306	415	456	393	408	378	484
Total, 1st 210 institutions	326,738	338,155	352,108	355,347	351,406	343,197	337,369	330,388
211 Ball State University	349	335	395	412	436	442	486	482
212 Fordham University	566	598	584	633	559	500	472	471
213 University of Missouri-Kansas City	590	552	543	490	431	512	470	467
214 Boston College	429	464	472	475	493	480	495	464
215 South Dakota State University	352	482	485	521	498	499	497	459
216 Saint John's University	429	457	533	558	556	530	469	455
217 University of Detroit Mercy	529	599	620	596	626	607	484	454
218 University of Southwestern Louisiana	495	562	583	483	466	429	469	438
219 Miami University (OH)	441	458	460	507	518	483	425	434
220 Saint Louis University	381	395	438	453	478	479	475	430
Total, 1st 220 institutions	331,299	343,057	357,221	360,475	356,467	348,158	342,111	334,942
221 Central Michigan University	257	292	341	324	353	363	422	425
222 Loma Linda University	92	105	150	138	169	194	278	418
223 US International University	519	492	468	473	419	378	378	409
224 SUNY College of Env Science and Forestry	455	427	457	428	415	410	395	400
225 Fuller Theological Seminary	338	343	352	373	381	416	408	396
226 College of William and Mary	334	371	431	432	436	450	434	394
227 East Tennessee State University	253	265	267	311	304	321	325	392
228 University of Missouri-St. Louis	316	281	323	310	425	455	438	392
229 Tennessee State University	249	226	242	216	327	388	375	382
230 California Institute of Integral Studies	250	362	362	447	416	450	487	381
Total, 1st 230 institutions	334,362	346,221	360,614	363,927	360,112	351,983	346,051	338,931
231 Hofstra University	451	402	349	342	356	346	335	371
232 Indiana State University	252	319	307	330	343	345	346	369
233 Dartmouth College	339	362	381	384	371	363	351	357
234 Univ of Texas SW Medical Ctr at Dallas	268	284	349	361	385	381	379	352
235 Clark Atlanta University	279	323	387	386	418	382	374	347
236 Calif Sch of Prof Psych - Fresno	251	366	385	393	370	399	411	339
237 University of South Alabama	311	342	362	318	328	326	367	338
238 Duquesne University	227	222	261	280	382	335	393	337
239 University of Maryland at Baltimore	330	355	360	320	324	285	315	333
240 East Carolina University	249	259	343	375	313	333	331	331
Total, 1st 240 institutions	337,319	349,455	364,098	367,416	363,702	355,478	349,653	342,405

See explanatory information, if any, and SOURCE at end of table.

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

Page 5 of 6

Institutional ranking	1990	1991	1992	1993	1994	1995	1996	1997
241 University of Calif at San Francisco	288	299	299	315	352	330	338	330
242 Louisiana Tech University	213	284	364	386	345	303	306	327
243 Jackson State University	283	251	263	304	332	328	322	324
244 University of North Dakota	292	281	324	339	335	333	324	324
245 Middle Tennessee State University	508	529	580	596	557	435	441	323
246 Caribbean Center for Advanced Studies	216	386	299	181	203	325	320	319
247 Adelphi University	407	380	387	317	271	248	287	318
248 Indiana University of Pennsylvania	123	140	158	203	301	333	296	317
249 Sam Houston State University	343	362	355	375	386	374	369	315
250 Walden University	0	0	0	0	0	0	223	310
Total, 1st 250 institutions	339,992	352,367	367,127	370,432	366,784	358,487	352,879	345,612
251 Tennessee Technological University	284	323	336	314	319	323	307	308
252 Baylor College of Medicine	239	246	262	279	273	285	284	302
253 Oregon Grad Inst of Science & Technology	188	213	291	320	318	287	205	301
254 University of Tulsa	260	280	321	339	346	350	310	300
255 Pacific Graduate School of Psychology	368	341	373	348	351	314	349	299
256 Baylor University	267	284	337	352	363	337	332	298
257 University of Bridgeport	326	33	133	148	135	148	172	298
258 Univ of North Carolina at Greensboro	308	303	351	355	370	305	288	295
259 Lamar University	287	401	457	397	349	295	290	294
260 Cal Schl of Prof Psych Berkeley/Alameda	512	519	528	508	455	428	370	286
Total, 1st 260 institutions	343,031	355,310	370,516	373,792	370,063	361,559	355,786	348,593
261 Thomas Jefferson University	99	183	212	224	249	297	307	281
262 Texas A&M University-Commerce	363	346	340	303	245	244	244	278
263 Finch U of Hlth Sci/The Chicago Med Sch	115	124	130	137	133	269	288	277
264 Idaho State University	291	264	291	364	374	377	325	277
265 Wake Forest University	215	229	231	245	290	272	276	275
266 Union Institute	446	523	381	724	673	512	302	274
267 Stephen F. Austin State University	200	201	231	230	260	243	247	271
268 Clark University	253	275	273	266	261	351	320	269
269 Alabama A&M University	240	254	268	312	272	202	194	250
270 University of Hartford	207	235	239	288	271	272	288	249
Total, 1st 270 institutions	345,460	357,944	373,112	376,885	373,091	364,598	358,577	351,294
271 Wright Institute, The	207	199	208	221	242	253	248	245
272 Florida A&M University	102	133	130	177	229	268	251	243
273 Medical University of South Carolina	146	154	173	192	193	237	238	235
274 New Mexico Institute of Mining and Tech	245	253	260	255	232	222	233	224
275 Clarkson University	312	286	279	287	254	239	226	216
276 University of South Dakota	221	202	219	207	207	221	225	209
277 University of La Verne	141	125	176	202	118	154	130	204
278 Univ of Med and Dentistry of New Jersey	217	239	188	204	225	206	197	198
279 Univ of Texas Hlth Sci Ctr San Antonio	130	133	157	163	168	169	182	189
280 New York Medical College	107	160	179	199	241	239	238	188
Total, 1st 280 institutions	347,288	359,828	375,081	378,992	375,200	366,806	360,745	353,445
281 CUNY Hunter College	462	419	414	383	378	374	203	186
282 American International College	170	164	169	123	123	124	122	184
283 CUNY Mt. Sinai School of Medicine	146	164	156	170	169	174	178	183
284 Chicago School of Prof Psych	158	134	139	148	159	169	180	183
285 South Dakota School of Mines and Tech	259	274	248	219	194	208	196	183
286 Forest Institute of Professional Psych	256	206	185	169	162	148	166	181
287 Northeast Louisiana University	104	101	108	118	147	119	172	181
288 University of Northern Colorado	190	182	224	231	216	166	180	181
289 Biola University	190	188	156	155	149	146	174	167
290 Mercer University	84	113	154	147	147	154	147	167
Total, 1st 290 institutions	349,307	361,773	377,034	380,855	377,044	368,588	362,463	355,241
291 James Madison University	102	108	113	120	97	103	104	166
292 Univ of Texas Med Branch at Galveston	97	128	139	145	158	152	140	160
293 University of Tennessee, Memphis	110	112	131	150	157	156	134	158
294 Philadelphia Col of Osteopathic Med	0	0	0	0	0	85	120	157
295 University of Northern Iowa	63	77	74	92	154	173	168	155
296 Medical College of Wisconsin	91	107	120	119	126	125	117	144
297 Mayo Graduate School	84	104	116	120	114	136	133	141
298 Eastern Virginia Medical School	111	118	126	138	156	155	136	139
299 Spalding University	112	107	112	91	115	117	125	137
300 Woods Hole Oceanographic Institution	92	102	113	112	120	115	137	137
Total, 1st 300 institutions	350,169	362,736	378,078	381,942	378,241	369,905	363,777	356,735

See explanatory information, if any, and SOURCE at end of table.

Table 45. Graduate students in science and engineering fields in doctorate-granting institutions, ranked by 1997 total graduate science and engineering students: 1990-97

Page 6 of 6

Institutional ranking	1990	1991	1992	1993	1994	1995	1996	1997
301 Texas Christian University	131	124	140	149	146	153	142	136
302 Meharry Medical College	47	54	60	69	144	140	139	131
303 University of Arkansas - Med Sci Campus	49	61	75	104	113	124	138	131
304 Alfred University	139	115	124	144	174	154	170	129
305 Oregon Health Sciences University	102	118	120	126	138	143	135	123
306 Wesleyan University	121	128	132	139	143	120	120	119
307 University of Maryland Eastern Shore	82	104	115	90	104	89	98	113
308 Medical College of Ohio	0	0	0	52	227	148	155	112
309 Andrews University	124	131	163	157	139	133	144	111
310 Bryn Mawr College	114	154	123	120	111	115	114	108
Total, 1st 310 institutions	351,078	363,725	379,130	383,092	379,680	371,224	365,132	357,948
311 Widener University	150	133	143	148	152	145	132	106
312 The Rockefeller University	128	128	134	136	132	125	93	105
313 Medical College of Georgia	78	82	84	88	96	93	100	101
314 Albany Medical College	70	70	88	96	95	102	93	96
315 University of Puerto Rico Med Sci Campus	77	113	89	132	128	144	135	96
316 Creighton University	76	71	77	93	53	120	129	93
317 University of Nebraska Medical Center	67	60	69	76	81	84	87	86
318 SUNY Health Science Center at Brooklyn	94	98	119	104	94	82	76	78
319 Hampton University	58	64	83	90	129	123	98	76
320 Rush University	95	90	98	103	100	100	77	75
Total, 1st 320 institutions	351,971	364,634	380,114	384,158	380,740	372,342	366,152	358,860
321 Institute of Paper Science & Technology	57	70	73	77	79	83	76	68
322 SUNY Health Science Center at Syracuse	50	68	64	72	71	65	68	68
323 Uniformed Serv Univ of the Hlth Sciences	92	88	71	66	57	58	55	63
324 CUNY Herbert H. Lehman College	78	61	53	65	72	41	70	52
325 University of San Diego	52	42	38	47	58	56	51	51
326 University of the Pacific	46	59	51	48	54	51	55	50
327 RAND Graduate School of Policy Studies	48	60	55	61	55	56	52	49
328 Maharishi University of Management	77	76	64	51	48	33	35	48
329 Union College	135	144	137	124	98	73	59	37
330 Institute of Textile Technology	30	30	28	34	29	25	27	28
Total, 1st 330 institutions	352,636	365,332	380,748	384,803	381,361	372,883	366,700	359,374
331 Mass College of Pharmacy/Allied Health	25	24	24	20	20	20	20	23
332 Philadelphia Coll of Pharmacy and Sci	31	29	31	33	29	30	26	21
333 Ponce School of Medicine	19	15	13	14	12	16	13	17
334 Morehouse School of Medicine	0	0	4	9	21	12	22	16
335 The Pontifical Cath Univ of Puerto Rico	0	0	0	15	20	20	10	11
336 Baylor College of Dentistry	3	6	7	9	7	9	7	7
337 Smith College	5	6	8	7	4	4	7	7
338 Atlanta University	0	0	0	0	0	0	0	0
339 Charles R. Drew Univ of Medicine & Sci	0	0	0	0	0	0	0	0
340 Emerson College	0	0	0	0	0	0	0	0
Total, 1st 340 institutions	352,719	365,412	380,835	384,910	381,474	372,994	366,805	359,476
341 Kirksville College of Osteopathic Med	0	0	0	0	0	0	0	0
342 Medical College of Pennsylvania, The	72	78	85	73	80	0	0	0
343 Midwestern University	0	0	0	0	0	0	0	0
344 Oral Roberts University	0	0	0	0	0	0	0	0
345 Pacific University	0	0	0	0	0	0	0	0
346 SUNY College of Optometry	0	0	0	0	0	0	0	0
347 U of North TX Hlth Sci Ctr at Ft Worth	0	0	0	0	0	0	0	0
348 Univ of Osteopathic Med & Health Sci	0	0	0	0	0	0	0	0
349 Univ of Texas M.D. Anderson Cancer Ctr	0	0	0	0	0	0	0	0
350 University of New England	13	9	3	3	0	0	0	0
Total, 1st 350 institutions	352,804	365,499	380,923	384,986	381,554	372,994	366,805	359,476
351 Xavier University of Louisiana	0	0	0	0	0	0	0	0
Total, 1st 351 institutions	352,804	365,499	380,923	384,986	381,554	372,994	366,805	359,476

NOTES: Includes medical schools

For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

**Table 46. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions,
by detailed field: 1990-97**

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	29,519	30,806	32,680	34,254	36,289	35,828	37,028	37,928
Total, science and engineering fields	21,773	22,813	23,829	24,605	25,734	26,087	26,513	26,806
Sciences, total	19,834	20,570	21,478	22,171	23,144	23,459	23,851	23,868
Physical sciences, total	5,566	5,691	5,758	5,640	5,849	5,829	5,803	5,836
Astronomy	184	210	206	219	246	276	312	317
Chemistry	3,630	3,647	3,564	3,555	3,710	3,637	3,568	3,692
Physics	1,724	1,814	1,949	1,827	1,849	1,820	1,837	1,728
Physical sciences, n.e.c.	28	20	39	39	44	96	86	99
Earth, atmos., & ocean sci., total	591	623	690	762	815	845	859	934
Atmospheric sciences	57	59	64	81	89	88	80	98
Geosciences	343	369	399	423	435	440	449	486
Oceanography	170	161	186	204	237	258	244	258
Earth, atmos., & ocean sci., n.e.c.	21	34	41	54	54	59	86	92
Mathematical sciences	248	206	201	224	239	259	326	303
Computer sciences	71	120	144	164	183	213	247	315
Agricultural sciences	524	565	630	698	705	688	665	692
Biological sciences, total	11,932	12,479	13,172	13,785	14,417	14,672	14,918	14,872
Anatomy	463	509	496	462	503	506	537	578
Biochemistry	2,174	2,120	2,157	2,368	2,379	2,409	2,466	2,532
Biology	1,360	1,398	1,475	1,460	1,576	1,601	1,633	1,537
Biometry/epidemiology	97	100	122	131	128	153	153	159
Biophysics	118	156	176	176	184	230	252	240
Botany	449	488	492	511	590	630	599	596
Cell biology	1,258	1,264	1,308	1,441	1,649	1,764	1,725	1,717
Ecology	57	49	60	65	88	95	107	131
Entomology/parasitology	212	236	223	223	190	179	183	216
Genetics	614	625	671	665	661	752	719	715
Microbio., immunology, & virology	1,469	1,715	1,784	1,881	1,924	1,943	1,975	2,005
Nutrition	131	171	196	210	192	186	198	209
Pathology	1,018	1,075	1,170	1,202	1,256	1,188	1,220	1,360
Pharmacology	1,104	1,153	1,286	1,327	1,375	1,401	1,418	1,322
Physiology	1,043	1,060	1,139	1,150	1,109	1,026	1,089	1,096
Zoology	162	161	165	174	171	164	135	108
Biosciences, n.e.c.	203	199	252	339	442	445	509	351
Psychology	464	507	523	520	546	577	589	560
Social sciences, total	438	379	360	378	390	376	444	356
Agricultural economics	57	39	49	46	45	39	56	50
Anthropology (cultural & social)	64	51	59	52	57	67	74	59
Economics (except agricultural)	37	40	22	38	46	27	16	19
Geography	19	15	22	28	26	16	22	12
Linguistics	38	14	26	29	20	16	36	19
Political science	66	78	49	35	44	36	35	31
Sociology	94	90	72	72	78	91	127	102
Sociology/anthropology	2	1	3	5	4	0	0	0
Social sciences, other	61	51	58	73	70	84	78	64
Engineering, total	1,939	2,243	2,351	2,434	2,590	2,628	2,662	2,938
Aerospace engineering	67	77	92	116	100	101	109	125
Agricultural engineering	33	35	37	39	45	46	48	58
Biomedical engineering	72	61	81	85	141	134	143	158
Chemical engineering	550	568	535	526	521	569	541	626
Civil engineering	168	185	187	181	210	200	230	234
Electrical engineering	241	339	313	383	407	378	393	505
Engineering science	76	117	71	78	95	101	93	115
Industrial/manufacturing eng.	6	27	38	63	53	29	28	27
Mechanical engineering	220	324	349	355	383	402	417	436
Metallurgical/materials eng.	363	392	450	403	441	490	496	464
Nuclear engineering	30	29	34	40	39	28	28	33
Engineering, other	113	89	164	165	155	150	136	157
Total, health fields	7,746	7,993	8,851	9,649	10,555	9,741	10,515	11,122
Clinical fields	6,184	6,366	7,065	7,614	8,329	7,428	8,019	8,489
Dental sciences	53	77	75	102	195	227	172	173
Nursing	23	28	28	40	48	43	23	34
Pharmaceutical sciences	487	475	486	534	575	504	509	483
Preventive medicine/community health	218	204	231	248	264	291	307	348
Speech pathology/audiology	28	41	47	49	40	53	46	36
Veterinary sciences	102	119	117	133	138	159	190	217
Other health fields	651	683	802	929	966	1,036	1,249	1,342

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 47. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions, by detailed field and source of support, and number of postdoctoral appointees without U.S. citizenship: 1997

Page 1 of 2

Field	Total	Source of support				Number of post-doctoral appointees without U.S. citizenship	
		Federal			Non-Federal		
		Total	Fellowships	Trainee-ships			
Total, all surveyed fields	37,928	25,778	3,407	2,726	19,645	12,150	19,288
Total, science and engineering fields	26,806	19,417	2,198	1,196	16,023	7,389	14,221
Sciences, total	23,868	17,385	2,045	1,177	14,163	6,483	12,357
Physical sciences, total	5,836	4,565	378	39	4,148	1,271	3,386
Astronomy	317	292	37	2	253	25	114
Chemistry	3,692	2,768	293	33	2,442	924	2,225
Physics	1,728	1,410	48	4	1,358	318	994
Physical sciences, n.e.c.	99	95	0	0	95	4	53
Earth, atmos., & ocean sci., total	934	726	61	6	659	208	367
Atmospheric sciences	98	89	0	0	89	9	35
Geosciences	486	352	31	0	321	134	192
Oceanography	258	205	29	6	170	53	105
Earth, atmos., & ocean sci., n.e.c.	92	80	1	0	79	12	35
Mathematical sciences	303	197	48	2	147	106	168
Computer sciences	315	226	21	0	205	89	172
Agricultural sciences	692	383	23	1	359	309	341
Biological sciences, total	14,872	10,731	1,407	981	8,343	4,141	7,690
Anatomy	578	458	54	47	357	120	310
Biochemistry	2,532	1,975	224	101	1,650	557	1,367
Biology	1,537	1,142	204	61	877	395	734
Biometry/epidemiology	159	133	33	62	38	26	45
Biophysics	240	174	22	12	140	66	101
Botany	596	410	44	1	365	186	325
Cell biology	1,717	1,081	193	42	846	636	868
Ecology	131	87	14	0	73	44	32
Entomology/parasitology	216	151	4	3	144	65	101
Genetics	715	457	83	52	322	258	372
Microbio., immunology, & virology	2,005	1,441	165	144	1,132	564	1,052
Nutrition	209	137	7	11	119	72	120
Pathology	1,360	932	90	177	665	428	757
Pharmacology	1,322	1,010	131	137	742	312	721
Physiology	1,096	823	97	101	625	273	594
Zoology	108	72	9	2	61	36	34
Biosciences, n.e.c.	351	248	33	28	187	103	157
Psychology	560	396	65	114	217	164	128
Social sciences, total	356	161	42	34	85	195	105
Agricultural economics	50	32	0	0	32	18	23
Anthropology (cultural & social)	59	21	8	0	13	38	14
Economics (except agricultural)	19	0	0	0	0	19	4
Geography	12	6	0	0	6	6	8
Linguistics	19	5	0	3	2	14	4
Political science	31	4	1	0	3	27	8
Sociology	102	68	23	27	18	34	17
Sociology/anthropology	0	0	0	0	0	0	0
Social sciences, other	64	25	10	4	11	39	27
Engineering, total	2,938	2,032	153	19	1,860	906	1,864
Aerospace engineering	125	112	2	0	110	13	80
Agricultural engineering	58	24	0	0	24	34	38
Biomedical engineering	158	115	15	10	90	43	72
Chemical engineering	626	405	43	1	361	221	377
Civil engineering	234	130	6	0	124	104	148
Electrical engineering	505	346	36	0	310	159	343
Engineering science	115	103	10	0	93	12	55
Industrial eng./manufacturing eng.	27	16	1	0	15	11	15
Mechanical engineering	436	320	17	2	301	116	292
Metallurgical/materials eng.	464	320	20	3	297	144	322
Nuclear engineering	33	24	0	0	24	9	15
Engineering, other	157	117	3	3	111	40	107

See explanatory information, if any, and SOURCE at end of table.

**Table 47. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions,
by detailed field and source of support, and number of postdoctoral appointees without
U.S. citizenship: 1997**

Page 2 of 2

Field	Total	Source of support					Number of post-doctoral appointees without U.S. citizenship	
		Federal				Non-Federal		
		Total	Fellowships	Trainee-ships	Research grants			
Total, health fields	11,122	6,361	1,209	1,530	3,622	4,761	5,067	
Clinical fields	8,489	4,736	978	1,241	2,517	3,753	3,909	
Dental sciences	173	115	27	38	50	58	64	
Nursing	34	30	11	13	6	4	1	
Pharmaceutical sciences	483	313	22	8	283	170	288	
Preventive medicine/community health	348	248	28	59	161	100	112	
Speech pathology/audiology	36	33	1	8	24	3	10	
Veterinary sciences	217	108	14	12	82	109	75	
Other health fields	1,342	778	128	151	499	564	608	

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 48. Nonfaculty research scientists, engineers, and health professionals with doctorates in doctorate-granting institutions, by detailed field: 1990-97

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all surveyed fields	5,234	5,457	5,464	5,993	6,208	6,517	6,594	6,674
Total, science and engineering fields	4,337	4,517	4,381	4,800	4,988	5,176	5,150	5,212
Sciences, total	3,731	3,858	3,644	3,997	4,163	4,387	4,420	4,362
Physical sciences, total	1,001	1,000	1,066	1,223	1,244	1,374	1,288	1,205
Astronomy	87	66	70	100	151	158	154	144
Chemistry	449	474	472	538	522	538	548	505
Physics	461	459	523	584	569	658	568	554
Physical sciences, n.e.c.	4	1	1	1	2	20	18	2
Earth, atmos., & ocean sci., total	314	298	302	340	363	418	430	428
Atmospheric sciences	19	26	21	40	27	21	46	76
Geosciences	135	129	153	138	198	218	190	148
Oceanography	137	137	114	132	118	152	167	163
Earth, atmos., & ocean sci., n.e.c.	23	6	14	30	20	27	27	41
Mathematical sciences	90	84	70	52	72	93	88	92
Computer sciences	61	50	42	67	48	66	107	87
Agricultural sciences	182	197	189	170	251	228	209	203
Biological sciences, total	1,747	1,857	1,691	1,844	1,854	1,958	1,904	1,970
Anatomy	65	50	39	52	39	48	59	58
Biochemistry	329	351	284	294	270	337	322	330
Biology	275	250	265	324	325	324	315	294
Biometry/epidemiology	21	33	26	36	37	32	26	24
Biophysics	31	36	38	49	54	58	44	54
Botany	76	122	79	97	86	88	66	62
Cell biology	122	147	158	201	176	210	194	195
Ecology	13	26	19	21	14	21	18	20
Entomology/parasitology	86	78	64	74	59	60	51	55
Genetics	58	70	53	67	63	65	79	121
Microbio., immunology, & virology	166	150	159	155	206	187	195	231
Nutrition	77	86	60	56	81	63	56	54
Pathology	113	102	123	114	145	132	136	114
Pharmacology	134	150	116	142	128	169	164	151
Physiology	122	143	136	99	103	115	119	147
Zoology	40	40	30	20	29	16	13	15
Biosciences, n.e.c.	19	23	42	43	39	33	47	45
Psychology	198	192	152	171	203	146	232	199
Social sciences, total	138	180	132	130	128	104	162	178
Agricultural economics	17	13	12	14	15	12	17	27
Anthropology (cultural & social)	46	57	35	43	48	34	34	13
Economics (except agricultural)	8	6	6	3	3	9	16	6
Geography	4	4	6	6	9	4	11	17
Linguistics	25	49	9	5	8	2	4	11
Political science	5	3	7	3	2	6	15	10
Sociology	23	26	24	16	9	11	15	34
Sociology/anthropology	0	0	0	0	0	0	3	5
Social sciences, other	10	22	33	40	34	26	47	55
Engineering, total	606	659	737	803	825	789	730	850
Aerospace engineering	24	26	39	69	66	80	86	84
Agricultural engineering	13	12	10	5	23	27	15	19
Biomedical engineering	12	16	26	26	36	26	21	31
Chemical engineering	77	61	148	126	87	70	82	160
Civil engineering	51	54	52	67	54	66	69	66
Electrical engineering	103	121	123	135	159	175	144	168
Engineering science	17	16	16	34	30	37	38	50
Industrial/manufacturing eng.	21	20	17	7	6	3	2	7
Mechanical engineering	125	113	97	116	135	108	108	109
Metallurgical/materials eng.	103	147	131	142	139	120	95	84
Nuclear engineering	36	34	37	27	36	32	29	28
Engineering, other	24	39	41	49	54	45	41	44
Total, health fields	897	940	1,083	1,193	1,220	1,341	1,444	1,462
Clinical fields	625	646	717	718	786	898	947	972
Dental sciences	8	16	20	27	11	12	14	52
Nursing	10	2	9	5	8	7	15	16
Pharmaceutical sciences	32	83	81	115	101	118	99	97
Preventive medicine/community health	69	55	65	95	105	90	118	79
Speech pathology/audiology	20	7	7	13	12	20	14	13
Veterinary sciences	34	30	47	45	58	53	67	61
Other health fields	99	101	137	175	139	143	170	172

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 49. Graduate students in science, engineering, and health fields in historically black colleges and universities, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

Page 1 of 2

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Total, all surveyed fields	5,509	3,636	8	252	55	868	167	523
Total, science and engineering fields	4,796	3,279	4	244	43	567	155	504
Sciences, total	4,265	2,995	4	214	34	513	130	375
Physical sciences, total	447	286	0	39	5	14	27	76
Astronomy	0	0	0	0	0	0	0	0
Chemistry	266	167	0	12	4	4	14	65
Physics	168	107	0	26	1	10	13	11
Physical sciences, n.e.c.	13	12	0	1	0	0	0	0
Earth, atmos., & ocean sci., total	88	43	1	2	2	32	5	3
Atmospheric sciences	0	0	0	0	0	0	0	0
Geosciences	0	0	0	0	0	0	0	0
Oceanography	0	0	0	0	0	0	0	0
Earth, atmos., & ocean sci., n.e.c.	88	43	1	2	2	32	5	3
Mathematical sciences	172	128	0	8	1	19	2	14
Computer sciences	446	219	1	112	0	26	25	63
Agricultural sciences	140	88	0	11	3	14	17	7
Biological sciences, total	761	593	1	24	10	59	12	62
Anatomy	5	3	0	1	0	1	0	0
Biochemistry	15	12	0	1	0	2	0	0
Biology	377	307	1	9	8	37	5	10
Biometry/epidemiology	0	0	0	0	0	0	0	0
Biophysics	0	0	0	0	0	0	0	0
Botany	75	55	0	0	0	0	0	20
Cell biology	0	0	0	0	0	0	0	0
Ecology	0	0	0	0	0	0	0	0
Entomology/parasitology	0	0	0	0	0	0	0	0
Genetics	30	13	0	3	0	7	0	7
Microbio., immunology, & virology	49	42	0	2	1	0	4	0
Nutrition	78	49	0	2	0	5	2	20
Pathology	0	0	0	0	0	0	0	0
Pharmacology	29	25	0	1	0	1	0	2
Physiology	42	33	0	5	0	2	0	2
Zoology	0	0	0	0	0	0	0	0
Biosciences, n.e.c.	61	54	0	0	1	4	1	1
Psychology	689	490	0	7	4	166	1	21
Social sciences, total	1,522	1,148	1	11	9	183	41	129
Agricultural economics	23	17	0	0	0	1	0	5
Anthropology (cultural & social)	0	0	0	0	0	0	0	0
Economics (except agricultural)	55	27	0	1	0	2	4	21
Geography	0	0	0	0	0	0	0	0
Linguistics	0	0	0	0	0	0	0	0
Political science	848	668	0	9	7	106	20	38
Sociology	265	191	0	0	1	32	11	30
Sociology/anthropology	63	44	0	0	0	4	1	14
Social sciences, other	268	201	1	1	1	38	5	21
Engineering, total	531	284	0	30	9	54	25	129
Aerospace engineering	0	0	0	0	0	0	0	0
Agricultural engineering	0	0	0	0	0	0	0	0
Biomedical engineering	0	0	0	0	0	0	0	0
Chemical engineering	35	11	0	0	0	5	1	18
Civil engineering	86	39	0	12	7	13	7	8
Electrical engineering	105	74	0	1	1	2	6	21
Engineering science	0	0	0	0	0	0	0	0
Industrial/manufacturing eng.	52	38	0	9	0	3	2	0
Mechanical engineering	143	86	0	8	0	11	9	29
Metallurgical/materials eng.	0	0	0	0	0	0	0	0
Nuclear engineering	0	0	0	0	0	0	0	0
Engineering, other	110	36	0	0	1	20	0	53

See explanatory information, if any, and SOURCE at end of table.

Table 49. Graduate students in science, engineering, and health fields in historically black colleges and universities, by detailed field, citizenship, and racial/ethnic background of U.S. citizens: 1997

Page 2 of 2

Field	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Total, health fields	713	357	4	8	12	301	12	19
Clinical fields	90	18	0	0	1	69	2	0
Dental sciences	0	0	0	0	0	0	0	0
Nursing	108	63	0	1	2	38	2	2
Pharmaceutical sciences	43	28	0	2	0	7	6	0
Preventive medicine/community health	0	0	0	0	0	0	0	0
Speech pathology/audiology	368	215	4	1	5	130	2	11
Veterinary sciences	15	9	0	0	0	0	0	6
Other health fields	89	24	0	4	4	57	0	0

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

KEY: n.e.c. = Not elsewhere classified

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 50. Graduate students in science and engineering fields in historically black colleges and universities, by geographic distribution, citizenship, and racial/ethnic background of U.S. citizens: 1997

Page 1 of 2

Geographic distribution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Total, all institutions	4,796	3,279	4	244	43	567	155	504
New England	0	0	0	0	0	0	0	0
Connecticut	0	0	0	0	0	0	0	0
Maine	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	0	0	0	0	0	0
New Jersey	0	0	0	0	0	0	0	0
New York	0	0	0	0	0	0	0	0
Pennsylvania	0	0	0	0	0	0	0	0
East North Central	0	0	0	0	0	0	0	0
Illinois	0	0	0	0	0	0	0	0
Indiana	0	0	0	0	0	0	0	0
Michigan	0	0	0	0	0	0	0	0
Ohio	0	0	0	0	0	0	0	0
Wisconsin	0	0	0	0	0	0	0	0
West North Central	14	6	0	0	0	8	0	0
Iowa	0	0	0	0	0	0	0	0
Kansas	0	0	0	0	0	0	0	0
Minnesota	0	0	0	0	0	0	0	0
Missouri	14	6	0	0	0	8	0	0
Nebraska	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0	0
South Atlantic	2,609	1,866	3	149	27	252	107	205
Delaware	36	13	0	1	1	21	0	0
District of Columbia	801	601	0	36	1	44	13	106
Florida	243	147	0	15	9	31	2	
Georgia	363	297	0	6	11	1	14	34
Maryland	249	143	0	32	3	54	15	2
North Carolina	764	550	2	48	2	83	19	60
South Carolina	0	0	0	0	0	0	0	0
Virginia	153	115	1	11	0	18	7	1
West Virginia	0	0	0	0	0	0	0	0
East South Central	1,260	778	1	53	5	200	22	201
Alabama	377	235	0	13	0	21	17	91
Kentucky	0	0	0	0	0	0	0	0
Mississippi	324	232	1	23	1	21	0	46
Tennessee	559	311	0	17	4	158	5	64
West South Central	913	629	0	42	11	107	26	98
Arkansas	0	0	0	0	0	0	0	0
Louisiana	441	339	0	28	1	54	13	6
Oklahoma	0	0	0	0	0	0	0	0
Texas	472	290	0	14	10	53	13	92

See explanatory information, if any, and SOURCE at end of table.

Table 50. Graduate students in science and engineering fields in historically black colleges and universities, by geographic distribution, citizenship, and racial/ethnic background of U.S. citizens: 1997

Page 2 of 2

Geographic distribution	Total	Racial/ethnic background of U.S. citizens						Non-U.S. citizens
		Black non-Hispanic	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	White non-Hispanic	Other or unknown	
Mountain	0	0	0	0	0	0	0	0
Arizona	0	0	0	0	0	0	0	0
Colorado	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	0	0	0
Montana	0	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0	0
Pacific	0	0	0	0	0	0	0	0
Alaska	0	0	0	0	0	0	0	0
California	0	0	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0	0
Outlying areas	0	0	0	0	0	0	0	0

NOTE: For 1991 and earlier years, permanent residents were included under "non-U.S. citizens." Beginning in 1992, permanent residents were included with U.S. citizens.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 51. Black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field: 1990-97

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all black students								
Total, all surveyed fields	15,216	16,407	18,487	20,439	21,177	22,154	22,976	23,534
Total, science and engineering fields	12,774	13,691	15,445	17,118	17,611	18,283	19,071	19,363
Sciences, total	10,988	11,666	13,071	14,559	14,827	15,427	16,176	16,489
Physical sciences	654	699	807	843	856	897	986	952
Earth, atmos., and ocean sciences	123	141	202	227	203	219	223	206
Mathematical sciences	511	524	579	710	673	689	711	657
Computer sciences	985	1,093	1,108	1,168	1,182	1,155	1,278	1,303
Agricultural sciences	158	145	209	235	239	294	268	229
Biological sciences	1,249	1,317	1,493	1,737	1,709	1,879	2,010	2,171
Psychology	2,226	2,455	2,758	3,284	3,529	3,359	3,455	3,641
Social sciences	5,082	5,292	5,915	6,355	6,436	6,935	7,245	7,330
Engineering	1,786	2,025	2,374	2,559	2,784	2,856	2,895	2,874
Health fields	2,442	2,716	3,042	3,321	3,566	3,871	3,905	4,171
Black students in HBCUs								
Total, all surveyed fields	2,004	2,090	2,232	2,627	2,982	3,189	3,384	3,636
Total, science and engineering fields	1,913	1,959	2,075	2,433	2,768	2,906	3,174	3,279
Sciences, total	1,771	1,816	1,898	2,221	2,515	2,612	2,883	2,995
Physical sciences	174	190	179	211	231	253	279	286
Earth, atmos., and ocean sciences	14	24	30	42	30	38	34	43
Mathematical sciences	108	107	111	169	155	139	157	128
Computer sciences	159	189	200	190	227	210	217	219
Agricultural sciences	34	37	70	84	102	130	111	88
Biological sciences	278	278	306	403	453	492	543	593
Psychology	313	317	352	428	489	413	430	490
Social sciences	691	674	650	694	828	937	1,112	1,148
Engineering	142	143	177	212	253	294	291	284
Health fields	91	131	157	194	214	283	210	357
Percent in HBCUs								
Total, all surveyed fields	13.2	12.7	12.1	12.9	14.1	14.4	14.7	15.4
Total, science and engineering fields	15.0	14.3	13.4	14.3	15.7	15.9	16.6	16.9
Sciences, total	16.1	15.6	14.5	15.4	17.0	16.9	17.8	18.2
Physical sciences	26.6	27.2	22.2	24.9	27.0	28.2	28.3	30.0
Earth, atmos., and ocean sciences	11.4	17.0	14.9	18.5	14.8	17.4	15.2	20.9
Mathematical sciences	21.1	20.4	19.2	25.9	23.0	20.2	22.1	19.5
Computer sciences	16.1	17.3	18.1	16.3	19.2	18.2	17.0	16.8
Agricultural sciences	21.5	25.5	33.5	41.0	42.7	44.2	41.4	38.4
Biological sciences	22.3	21.1	20.5	23.1	26.5	26.2	27.0	27.3
Psychology	14.1	12.9	12.8	12.8	13.9	12.3	12.4	13.5
Social sciences	13.6	12.7	11.0	10.9	12.9	13.5	15.3	15.7
Engineering	8.0	7.1	7.5	8.2	9.1	10.3	10.1	9.9
Health fields	3.7	4.8	5.2	5.8	6.0	7.3	5.4	8.6

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 52. Black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field and sex: 1994-97

Page 1 of 1

Field	Men				Women			
	1994	1995	1996	1997	1994	1995	1996	1997
Total, all black students								
Total, all surveyed fields	8,669	8,934	8,974	9,111	12,508	13,220	14,002	14,423
Total, science and engineering fields	8,049	8,211	8,253	8,344	9,562	10,072	10,818	11,019
Sciences, total	6,082	6,254	6,301	6,385	8,745	9,173	9,875	10,104
Physical sciences	497	529	550	508	359	368	436	444
Earth, atmospheric, and ocean sciences	118	117	116	105	85	102	107	101
Mathematical sciences	343	385	368	348	330	304	343	309
Computer sciences	696	652	718	768	486	503	560	535
Agricultural sciences	118	150	131	105	121	144	137	124
Biological sciences	671	691	725	783	1,038	1,188	1,285	1,388
Psychology	851	817	810	908	2,678	2,542	2,645	2,733
Social sciences	2,788	2,913	2,883	2,860	3,648	4,022	4,362	4,470
Engineering	1,967	1,957	1,952	1,959	817	899	943	915
Health fields	620	723	721	767	2,946	3,148	3,184	3,404
Black students in HBCUs								
Total, all surveyed fields	1,265	1,331	1,383	1,463	1,717	1,858	2,001	2,173
Total, science and engineering fields	1,226	1,273	1,343	1,396	1,542	1,633	1,831	1,883
Sciences, total	1,048	1,078	1,152	1,201	1,467	1,534	1,731	1,794
Physical sciences	127	145	161	151	104	108	118	135
Earth, atmospheric, and ocean sciences	12	16	14	17	18	22	20	26
Mathematical sciences	69	79	80	71	86	60	77	57
Computer sciences	125	92	105	117	102	118	112	102
Agricultural sciences	42	57	54	42	60	73	57	46
Biological sciences	187	194	202	218	266	298	341	375
Psychology	132	114	108	171	357	299	322	319
Social sciences	354	381	428	414	474	556	684	734
Engineering	178	195	191	195	75	99	100	89
Health fields	39	58	40	67	175	225	170	290
Percent in HBCUs								
Total, all surveyed fields	14.6	14.9	15.4	16.1	13.7	14.1	14.3	15.1
Total, science and engineering fields	15.2	15.5	16.3	16.7	16.1	16.2	16.9	17.1
Sciences, total	17.2	17.2	18.3	18.8	16.8	16.7	17.5	17.8
Physical sciences	25.6	27.4	29.3	29.7	29.0	29.3	27.1	30.4
Earth, atmospheric, and ocean sciences	10.2	13.7	12.1	16.2	21.2	21.6	18.7	25.7
Mathematical sciences	20.1	20.5	21.7	20.4	26.1	19.7	22.4	18.4
Computer sciences	18.0	14.1	14.6	15.2	21.0	23.5	20.0	19.1
Agricultural sciences	35.6	38.0	41.2	40.0	49.6	50.7	41.6	37.1
Biological sciences	27.9	28.1	27.9	27.8	25.6	25.1	26.5	27.0
Psychology	15.5	14.0	13.3	18.8	13.3	11.8	12.2	11.7
Social sciences	12.7	13.1	14.8	14.5	13.0	13.8	15.7	16.4
Engineering	9.0	10.0	9.8	10.0	9.2	11.0	10.6	9.7
Health fields	6.3	8.0	5.5	8.7	5.9	7.1	5.3	8.5

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 53. Full-time black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field: 1990-97

Page 1 of 1

Field	1990	1991	1992	1993	1994	1995	1996	1997
Total, all black students								
Total, all surveyed fields	8,112	8,863	10,219	11,387	11,965	12,501	12,989	13,558
Total, science and engineering fields	7,029	7,692	8,904	9,903	10,343	10,668	10,986	11,415
Sciences, total	6,079	6,552	7,545	8,413	8,640	8,978	9,323	9,736
Physical sciences	488	529	630	690	709	729	769	741
Earth, atmos., and ocean sciences	85	97	128	142	129	136	130	138
Mathematical sciences	264	276	331	411	412	423	422	387
Computer sciences	367	446	411	460	465	485	475	495
Agricultural sciences	133	113	163	162	162	227	194	176
Biological sciences	931	997	1,119	1,348	1,369	1,450	1,513	1,734
Psychology	1,268	1,424	1,656	1,854	2,046	2,028	2,087	2,218
Social sciences	2,543	2,670	3,107	3,346	3,348	3,500	3,733	3,847
Engineering	950	1,140	1,359	1,490	1,703	1,690	1,663	1,679
Health fields	1,083	1,171	1,315	1,484	1,622	1,833	2,003	2,143
Black students in HBCUs								
Total, all surveyed fields	1,162	1,234	1,289	1,604	1,951	2,004	2,086	2,310
Total, science and engineering fields	1,098	1,158	1,201	1,484	1,807	1,841	1,954	2,070
Sciences, total	997	1,046	1,075	1,300	1,588	1,591	1,735	1,849
Physical sciences	114	136	130	178	188	198	217	215
Earth, atmos., and ocean sciences	6	12	11	24	15	8	9	22
Mathematical sciences	53	58	62	106	98	89	99	79
Computer sciences	71	93	90	93	113	92	90	114
Agricultural sciences	26	24	57	32	46	92	67	69
Biological sciences	214	212	228	333	375	380	419	470
Psychology	127	138	145	193	284	262	259	287
Social sciences	386	373	352	341	469	470	575	593
Engineering	101	112	126	184	219	250	219	221
Health fields	64	76	88	120	144	163	132	240
Percent in HBCUs								
Total, all surveyed fields	14.3	13.9	12.6	14.2	16.3	16.0	16.1	17.0
Total, science and engineering fields	15.6	15.1	13.5	15.2	17.5	17.3	17.8	18.1
Sciences, total	16.4	16.0	14.2	15.7	18.4	17.7	18.6	19.0
Physical sciences	23.4	25.7	20.6	25.6	26.5	27.2	28.2	29.0
Earth, atmos., and ocean sciences	7.1	12.4	8.6	16.9	11.6	5.9	6.9	15.9
Mathematical sciences	20.1	21.0	18.7	29.2	23.8	21.0	23.5	20.4
Computer sciences	19.3	20.9	21.9	20.2	24.3	19.0	18.9	23.0
Agricultural sciences	19.5	21.2	35.0	26.1	28.4	40.5	34.5	39.2
Biological sciences	23.0	21.3	20.4	24.6	27.4	26.2	27.7	27.1
Psychology	10.0	9.7	8.8	10.2	13.9	12.9	12.4	12.9
Social sciences	15.2	14.0	11.3	10.1	14.0	13.4	15.4	15.4
Engineering	10.6	9.8	9.3	12.2	12.9	14.8	13.2	13.2
Health fields	5.9	6.5	6.7	8.1	8.9	8.9	6.6	11.2

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

Table 54. Full-time black graduate students in science, engineering, and health fields in all institutions and historically black colleges and universities, by field and sex: 1994-97

Page 1 of 1

Field	Men				Women			
	1994	1995	1996	1997	1994	1995	1996	1997
Total, all black students								
Total, all surveyed fields	5,114	5,212	5,245	5,376	6,851	7,289	7,744	8,182
Total, science and engineering fields	4,772	4,807	4,786	4,906	5,571	5,861	6,200	6,509
Sciences, total	3,607	3,691	3,695	3,786	5,033	5,287	5,628	5,950
Physical sciences	409	434	441	393	300	295	328	348
Earth, atmospheric, and ocean sciences	79	78	68	71	50	58	62	67
Mathematical sciences	208	242	221	209	204	181	201	178
Computer sciences	283	285	281	310	182	200	194	185
Agricultural sciences	82	105	83	83	80	122	111	93
Biological sciences	546	543	562	636	823	907	951	1,098
Psychology	507	489	497	539	1,539	1,539	1,590	1,679
Social sciences	1,493	1,515	1,542	1,545	1,855	1,985	2,191	2,302
Engineering	1,165	1,116	1,091	1,120	538	574	572	559
Health fields	342	405	459	470	1,280	1,428	1,544	1,673
Black students in HBCUs								
Total, all surveyed fields	867	848	865	941	1,084	1,156	1,221	1,369
Total, science and engineering fields	838	825	846	905	969	1,016	1,108	1,165
Sciences, total	683	662	707	755	905	929	1,028	1,094
Physical sciences	105	117	129	113	83	81	88	102
Earth, atmospheric, and ocean sciences	8	6	5	9	7	2	4	13
Mathematical sciences	39	51	51	45	59	38	48	34
Computer sciences	64	40	52	70	49	52	38	44
Agricultural sciences	23	35	30	34	23	57	37	35
Biological sciences	157	148	158	179	218	232	261	291
Psychology	72	63	58	77	212	199	201	210
Social sciences	215	202	224	228	254	268	351	365
Engineering	155	163	139	150	64	87	80	71
Health fields	29	23	19	36	115	140	113	204
Percent in HBCUs								
Total, all surveyed fields	17.0	16.3	16.5	17.5	15.8	15.9	15.8	16.7
Total, science and engineering fields	17.6	17.2	17.7	18.4	17.4	17.3	17.9	17.9
Sciences, total	18.9	17.9	19.1	19.9	18.0	17.6	18.3	18.4
Physical sciences	25.7	27.0	29.3	28.8	27.7	27.5	26.8	29.3
Earth, atmospheric, and ocean sciences	10.1	7.7	7.4	12.7	14.0	3.4	6.5	19.4
Mathematical sciences	18.8	21.1	23.1	21.5	28.9	21.0	23.9	19.1
Computer sciences	22.6	14.0	18.5	22.6	26.9	26.0	19.6	23.8
Agricultural sciences	28.0	33.3	36.1	41.0	28.7	46.7	33.3	37.6
Biological sciences	28.8	27.3	28.1	28.1	26.5	25.6	27.4	26.5
Psychology	14.2	12.9	11.7	14.3	13.8	12.9	12.6	12.5
Social sciences	14.4	13.3	14.5	14.8	13.7	13.5	16.0	15.9
Engineering	13.3	14.6	12.7	13.4	11.9	15.2	14.0	12.7
Health fields	8.5	5.7	4.1	7.7	9.0	9.8	7.3	12.2

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering

SURVEY MATERIALS

<i>Item</i>	<i>Page</i>
Instructions for the NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering, Fall 1997.....	xx
Survey of Graduate Students and Postdoctorates in Science and Engineering, Fall 1997: Department or Program Data Sheet (NSF Form 812).....	xx
Crosswalk between NSF discipline codes and the NCES Classification of Instructional Programs	xx

INSTRUCTIONS

FOR THE NSF-NIH SURVEY OF GRADUATE STUDENTS AND POSTDOCTORATES IN SCIENCE AND ENGINEERING, FALL 1997

PURPOSE OF THE SURVEY

The survey provides a comprehensive picture of the training of future scientists and engineers in the Nation's graduate schools. Data are used by Congress and the executive branch during budget preparation, and by State government agencies and other analysts to assess the future supply of science and engineering (S&E) personnel.

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. All information provided will be used for statistical purposes only. Response is entirely voluntary and failure to provide some or all of the information will in no way adversely affect your institution.

The average time required for questionnaire completion is 2 hours. Response burden comments should be directed to Gail McHenry at (703) 306-1125, ext. 2010.

Students Included in This Survey

Count as graduate students persons enrolled **for credit** in any S&E master's or Ph.D. degree program in fall 1997. Report M.D., D.O., D.V.M., or D.D.S. candidates, interns, and residents in items 5 through 7 **only** if they are concurrently working for an S&E master's or Ph.D. degree or are enrolled in a joint medical/Ph.D. program. Individuals who already hold graduate or medical degrees and are working on another master's or Ph.D. degree are considered graduate students (items 5 through 7), not postdoctorates (item 8).

Include S&E students performing thesis or dissertation research away from the campus (for example, at Government- and contractor-owned facilities) in the United States as long as they are enrolled for credit in an advanced-degree program.

All data should be reported in terms of headcounts, not full-time equivalents (FTEs).

Students Excluded From This Survey

Exclude students enrolled in a foreign country (at a branch or extension center), and non-matriculated students.

Students Enrolled in Multiple Departments/Institutions

A student should be reported in only **one** department. Students enrolled in interdisciplinary/interinstitutional programs should be counted only once, by their "home" department and institution.

INCOMPLETE DATA

Please write "unavailable" or "unknown" in data cells as applicable. On this form, "N/A" means "not applicable." Data cells left blank are presumed to be zeroes.

ITEM 5: FULL-TIME STUDENTS

Report the total number of full-time degree-seeking students in line (6), column (L). Then, in lines (1) through (6), count each full-time student **only once** by **largest** source of support so that all columns and rows in item 5 sum to the full-time total in line (6), column (L). In item 5, count only graduate students pursuing an S&E degree according to a full-time schedule; this may include any combination of study, teaching, and research, depending on your institution's policy and definition of full-time status. For example, many institutions base full-time status on the number of credit hours taken; others calculate full-time according to the amount of fees paid by the student.

Mechanisms of Support—Lines (1) Through (5)

A **fellowship**, line (1), is any competitive award (often from a national competition) made to a student that requires no work of the recipient. A **traineeship**, line (2), is an educational award given to a student selected by the institution. An **assistantship** should be classified as **research**, line (3), or **teaching**, line (4), depending on assigned duties; e.g., a student devoting most of his or her time to teaching should be reported on line (4). All other full-time students, including members of the Armed Forces whose tuition is paid by the Department of Defense, and self-supported students, should be reported on line (5).

Federal Sources of Support—Columns (A) Through (G)

Department of Defense (DoD)—Column (A): Sources include the Departments of the Army, Navy, or Air Force, as well as programs within the Office of the Secretary of Defense. Students receiving their main support from the Veterans Administration under the G.I. Bill should be reported under column (F), "Other Federal sources."

Department of Health and Human Services (HHS)—Columns (B) and (C): Report students with support from the institutes or divisions of the National Institutes of Health (NIH) under column (B); report support from all other components of HHS in column (C). Refer to the organizational roster under "Definitions."

National Science Foundation (NSF)—Column (D): Report students receiving NSF graduate fellowships and minority fellowships, as well as those supported under NSF research grants.

U.S. Department of Agriculture (USDA)—Column (E): Include research assistants working on projects financed out

of Hatch, McIntyre-Stennis, or Smith-Lever formula funds, competitive research grants, and institution fellowship/training grants.

National Aeronautics and Space Administration (NASA)—Column (F): Report students with support from this agency.

Other Federal sources—Column (G): Report students receiving support from Federal agencies other than those listed in columns (A) through (F), such as the Fulbright program, the G.I. Bill, and Department of Education and Department of Energy programs. Students primarily supported by Federal loans should be reported in column (K), "Self-supported students."

Non-Federal Sources of Support—Cols. (H) Through (J)

Institutional support—Column (H): Report students supported from YOUR institution, including those receiving tuition waivers. State and local government support should also be reported in this column. Students primarily supported with funds from the Federal Government, such as training grants, however, should be reported under the appropriate Federal agency.

Foreign sources—Column (I): Report students supported from any non-U.S. source, such as foreign governments, industrial firms, or specialized agencies of the United Nations.

Other U.S. sources—Column (J): Report students supported from nonprofit institutions, private industry, and all other non-Federal U.S. sources not included in columns (H) or (I).

Self-supported students—Column (K): Report both foreign and U.S. citizen students whose largest source of support comes from ANY loans (including Federal loans) or from personal or family financial contributions. **These students must be included in the full-time total, line (6), column (L).**

Women—Line (7)

Report all full-time female students by the source of their primary support. The total number of full-time women should be reported in line (7), column (L).

In each column, data on line (7) should not exceed the total on line (6).

First-Time Full-Time Students—Lines (8) and (9)

A first-time student has enrolled in the program in which he or she is pursuing a degree as of the beginning of the fall term in 1997. All other students should be considered to be beyond their first time of enrollment.

ITEM 6: PART-TIME STUDENTS

Report all part-time students in item 6, regardless of their source of support. Part-time students are pursuing an S&E graduate degree but NOT on a full-time schedule. Consider students part-time according to your own institution's definition of part-time status.

ITEM 7: CITIZENSHIP AND RACIAL/ETHNIC BACKGROUND OF U.S. CITIZENS AND PERMANENT RESIDENTS

Report all U.S. citizens and permanent residents in columns (A) through (G), and count each student only once according to his or her racial/ethnic category as defined by the Bureau of the Census, listed under "Definitions."

Count foreign students, i.e., those holding temporary visas, only **once** in column (H), regardless of race/ethnicity. Native residents of a U.S. possession and applicants for U.S. citizenship holding green cards, however, should be reported as U.S. citizens.

Total full-time and part-time enrollments reported in item 7 should match those reported in items 5 and 6, respectively.

ITEM 8: POSTDOCTORATES AND NONFACULTY RESEARCH STAFF WITH DOCTORATES

Postdoctorates—Columns (A) through (F): Include individuals with science and engineering Ph.D.'s, M.D.'s, D.D.S.'s, or D.V.M.'s (including foreign degrees equivalent to U.S. doctorates) who devote their **primary effort to their own research training through research activities or study** in the department under temporary appointments carrying no academic rank. These individuals may contribute to the academic program through seminars, lectures, or working with graduate students. Such postdoctorates may have different titles at different institutions, e.g., "Postdoctoral Scholar," "Research Associate," "Postdoctoral Fellow," or "Postgraduate Researcher." Exclude, however, clinical fellows and those with appointments in residency training programs in medical and health professions, **unless research training under the supervision of a senior mentor is the primary purpose** of the appointment.

Report postdoctorates by source of support in columns (A) through (D), with the total number of postdoctorates reported in column (E). Of this total, report the number who are foreign in column (F).

Other non-faculty research staff with doctorates—

Column (G): Include all doctoral scientists and engineers who are involved principally in research activities but are not considered either postdoctoral appointees or members of the regular faculty.

On line (2), report the number of women in each category. On line (3), report those postdoctorates and nonfaculty research staff who hold first professional medical degrees (M.D., D.O., D.D.S., D.V.M.). Please note that in each column, data on lines (2) and (3) should not exceed the total on line (1).

DEFINITIONS

(1) NATIONAL INSTITUTES OF HEALTH ORGANIZATIONAL ROSTER—Item 5, column (B)

Fogarty International Center
National Cancer Institute
National Center for Human Genome Research
National Center for Nursing Research
National Center for Research Resources
National Eye Institute
National Heart, Lung, and Blood Institute
National Institute of Arthritis and Musculoskeletal and Skin Diseases
National Institute of Child Health and Human Development
National Institute of Dental Research
National Institute of Diabetes and Digestive and Kidney Diseases
National Institute of Environmental Health Sciences
National Institute of General Medical Sciences
National Institute of Mental Health
National Institute of Neurological Disorders and Stroke
National Institute on Aging

National Institute on Alcohol Abuse and Alcoholism
National Institute of Allergy and Infectious Diseases
National Institute on Deafness and Other Communication Disorders
National Institute on Drug Abuse
National Library of Medicine

(2) OTHER HHS ADMINISTRATIVE UNITS

—Item 5, column (C)

Substance Abuse and Mental Health Services Administration

(Please note that the former Alcohol, Drug Abuse and Mental Health Administration institutes are now part of the National Institutes of Health.)

Centers for Disease Control

National Institute for Occupational Safety and Health

Food and Drug Administration

Health Resources and Services Administration

(3) RACIAL/ETHNIC CATEGORIES FOR U.S. CITIZENS AND PERMANENT RESIDENTS DEFINED BY THE BUREAU OF THE CENSUS

—Item 7

Black, non-Hispanic: Persons having origins in any of the black racial groups (except those of Hispanic origin).

American Indian or Alaskan native: Persons having origins in any of the original peoples of North America.

Asian or Pacific Islander: Persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. These areas include China, Japan, Korea, the Philippine Islands, and Samoa.

Hispanic: Persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

White, non-Hispanic: Persons having origins in any of the original peoples of Europe, North Africa, or the Middle East, except those of Hispanic origin.

If you have any questions about this survey, please contact Ms. Toni Picker, Dr. Atessa Shahmirzadi, or Ms. Karen Gliwa of Quantum Research Corporation by telephone at (301) 657-3070, or by e-mail at gss@qrc.com.

UPON COMPLETING THIS FORM, PLEASE RETURN IT TO YOUR SURVEY COORDINATOR FOR TRANSMITTAL BY JANUARY 31, 1998.

**NATIONAL SCIENCE FOUNDATION and NATIONAL INSTITUTES OF HEALTH
Survey of Graduate Students and Postdoctorates in Science and Engineering, Fall 1997**

DEPARTMENT OR PROGRAM DATA SHEET

Due date: January 31, 1998

ITEMS 1-4. IDENTIFYING INFORMATION

1. Institution name: _____

2. Name of S&E department or program: _____

If changed since last year, please indicate previous name and whether this represents a merger, split, or expanded program: _____

4. Highest graduate degree available in this department or program (CHECK ONE): (1) Ph.D.¹ (2) Master's (3) No Ph.D.¹ or master's degree offered

3. Person in department or program preparing this form:

Name: _____

Title: _____

Phone: (_____) _____

E-mail address: _____

Institution and
department code
(LEAVE BLANK)

Report all data on a headcount basis (use whole numbers, *not* fractions, decimals, FTEs, etc.). If your department does not enroll graduate students, please go to item 8.

ITEM 5. NUMBER OF FULL-TIME GRADUATE STUDENTS enrolled for advanced degrees (master's and doctoral) in fall 1997. Report each student **only once** according to the source and mechanism of the **largest amount of support** received in fall 1997.

Students receiving equal support from multiple sources or through multiple mechanisms should be reported only once. When determining the largest source of support, consider **all** graduate school academic expenses including tuition, tuition remission, and stipends.

MECHANISMS OF SUPPORT	STUDENTS RECEIVING FINANCIAL ASSISTANCE										SELF-SUPPORTED STUDENTS (including loans and family sources) (K)	TOTAL FULL-TIME GRADUATE ENROLLMENT (Sum of (A) through (K)) (L)			
	FEDERAL SOURCES (excluding loans)		NON-FEDERAL SOURCES												
	Department of Defense (A)	National Institutes of Health (B)	Other HHS (C)	National Science Foundation (D)	Department of Agriculture (E)	NASA (F)	Other Federal sources (G)	Institutional support (including State & local government) (H)	Foreign sources (I)	Other U.S. sources (J)					
Graduate Fellowships	(1)														
Graduate Traineeships	(2)														
Graduate Research Assistantships	(3)														
Graduate Teaching Assistantships	(4)														
Other Types of Support	(5)														
FULL-TIME TOTAL²	(6)														
Of the students in line (6), how many in each data cell are WOMEN? ³	(7)														
First-Time Full-Time Students	(8)	Of the full-time students on line (6), column (L), how many are FIRST-TIME? (Should not exceed total in line (6), column (L))													
First-Time Full-Time Women Students	(9)	Of the first-time students on line (8), how many are WOMEN?													

¹ Or Ph.D. equivalent such as Sc.D. and D.Eng., but not Ed.D., M.D., or other professional degree

² The total from line (6) should be inserted in item 7, line (3), column (I).

³ The total from line (7) should be inserted in item 7, line (2), column (I).

ITEM 6. NUMBER OF PART-TIME GRADUATE STUDENTS enrolled for advanced degrees (master's and Ph.D.) in fall 1997.

PART-TIME TOTAL (The total from line (1) should be inserted below in item 7, line (6), column (I).)	(1)	
Of the part-time students on line (1), how many are WOMEN? (The total from line (2) should be inserted below in item 7, line (5), column (I).)	(2)	

ITEM 7. RACE/ETHNICITY of FULL-TIME (Item 5) and PART-TIME (Item 6) graduate students in fall 1997, by sex.	Of the student totals in items 5 and 6, how many belong to the following RACIAL/ETHNIC categories? In each line, count each student only once.	U.S. CITIZENS AND PERMANENT RESIDENTS							FOREIGN: temporary visa holders (H)	TOTAL (Sum of (A) through (H)) (I)
		Black non- Hispanic (A)	Amer. Indian/ Alaskan Native (B)	Asian/ Pacific Islander (C)	Hispanic (D)	White non- Hispanic (E)	Other (F)	Unknown or declined to state (G)		
	MEN ENROLLED FULL TIME	(1)								
	WOMEN ENROLLED FULL TIME (column (I) should equal item 5, line (7), column (L))	(2)								
	FULL TIME, TOTAL (column (I) should equal item 5, line (6), column (L))	(3)								
	MEN ENROLLED PART TIME	(4)								
	WOMEN ENROLLED PART TIME (column (I) should equal item 6, line (2))	(5)								
	PART TIME, TOTAL (column (I) should equal item 6, line (1))	(6)								

ITEM 8. NUMBER OF POSTDOCTORATES AND NON-FACULTY RESEARCH STAFF WITH DOCTORATES in fall 1997.	POSTDOCTORATES							OTHER NON- FACULTY RESEARCH STAFF WITH DOCTORATES (G)				
	SOURCE OF SUPPORT			NON- FEDERAL (D)	TOTAL for all sources (A) through (D) (E)		Of the total in (E), how many are FOREIGN? (F)					
	FEDERAL											
	Fellowships (A)	Traineeships (B)	Research grants (C)									
TOTAL	(1)											
Of the total in each cell of line (1), how many are WOMEN?	(2)											
Of the total in each cell of line (1), how many hold an M.D., D.O., D.D.S., or D.V.M. degree?	(3)											

Approximately how many personhours were required to complete this form?

Please explain variances from the previous year's data or include other comments:

List other Federal sources (agencies), from item 5, column (G), and
number of full-time students supported by each:



This questionnaire has been printed on recycled paper.

Survey of Graduate Students and Postdoctorates in Science and Engineering

CROSSWALK BETWEEN NSF DISCIPLINE CODES AND THE NCES CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

The following set of discipline codes categorizes the science and engineering departments or programs in the Survey of Graduate Students and Postdoctorates in Science and Engineering. Representative department names are shown under each of the discipline codes.

ENGINEERING		EARTH, ATMOSPHERIC, AND OCEAN SCIENCES
101 AEROSPACE ENGINEERING	14.02 AEROSPACE, AERONAUTICAL, AND ASTRONAUTICAL ENGR.	301 ATMOSPHERIC SCIENCES 40.04 ATMOSPHERIC SCIENCES AND METEOROLOGY
102 AGRICULTURAL ENGINEERING	14.03 AGRICULTURAL ENGINEERING	302 GEOSCIENCES 40.06 GEOLOGICAL AND RELATED SCIENCES 40.0703 EARTH AND PLANETARY SCIENCES
103 BIOMEDICAL ENGINEERING	14.05 BIOENGINEERING AND BIOMEDICAL ENGINEERING	303 OCEAN SCIENCES 26.0607 MARINE/AQUATIC BIOLOGY 40.0702 OCEANOGRAPHY
104 CHEMICAL ENGINEERING	03.0509 WOOD SCIENCE 14.07 CHEMICAL ENGINEERING 14.32 POLYMER/PLASTICS ENGINEERING	304 EARTH, ATMOSPHERIC, AND OCEAN SCIENCES, N.E.C.
105 CIVIL ENGINEERING	04.02 ARCHITECTURE 14.04 ARCHITECTURAL ENGINEERING 14.08 CIVIL ENGINEERING 14.0803 STRUCTURAL ENGINEERING 14.0805 WATER RESOURCES ENGINEERING 14.14 ENVIRONMENTAL/ENVIRONMENTAL HEALTH ENGINEERING	MATHEMATICAL SCIENCES
106 ELECTRICAL ENGINEERING	14.09 COMPUTER ENGINEERING 14.10 ELECTRICAL, ELECTRONICS, AND COMMUNICATIONS ENGR.	402 MATHEMATICS AND APPLIED MATHEMATICS 27.01 MATHEMATICS 27.03 APPLIED MATHEMATICS 27.0302 OPERATIONS RESEARCH 27.99 MATHEMATICS, OTHER 30.08 MATHEMATICS AND COMPUTER SCIENCE
107 ENGINEERING SCIENCE AND ENGINEERING PHYSICS	14.12 ENGINEERING PHYSICS 14.13 ENGINEERING SCIENCE	403 STATISTICS 27.05 MATHEMATICAL STATISTICS 52.0802 ACTUARIAL SCIENCE
108 INDUSTRIAL/MANUFACTURING ENGINEERING	14.17 INDUSTRIAL/MANUFACTURING ENGINEERING 14.27 SYSTEMS ENGINEERING 14.30 ENGINEERING/INDUSTRIAL MANAGEMENT 30.06 SYSTEMS SCIENCE	COMPUTER SCIENCE
109 MECHANICAL ENGINEERING	14.11 ENGINEERING MECHANICS 14.19 MECHANICAL ENGINEERING	401 COMPUTER SCIENCE 11.01 COMPUTER AND INFORMATION SCIENCES, GENERAL 11.04 INFORMATION SCIENCES AND SYSTEMS 11.07 COMPUTER SCIENCE 52.1201 MANAGEMENT INFORMATION SYSTEMS 52.1301 MANAGEMENT SCIENCE
110 METALLURGICAL AND MATERIALS ENGINEERING	14.06 CERAMIC SCIENCES AND ENGINEERING 14.18 MATERIALS ENGINEERING 14.20 METALLURGICAL ENGINEERING 14.28 TEXTILE SCIENCES AND ENGINEERING 14.31 MATERIALS SCIENCE 40.0701 METALLURGY	AGRICULTURAL SCIENCES (SEE ALSO 102 AND 901)
111 MINING ENGINEERING	14.15 GEOLOGICAL ENGINEERING 14.16 GEOPHYSICAL ENGINEERING 14.21 MINING AND MINERAL ENGINEERING	501 AGRICULTURAL SCIENCES 02.01 AGRICULTURE/AGRICULTURAL SCIENCES 02.02 ANIMAL SCIENCES 02.03 FOOD SCIENCES 02.04 PLANT SCIENCES 02.05 SOIL SCIENCES 02.99 AGRICULTURAL SCIENCES, OTHER 03.01 NATURAL RESOURCES CONSERVATION 03.02 CONSERVATION AND REGULATION 03.03 FISHING AND FISHERIES SCIENCES AND MANAGEMENT 03.05 FORESTRY AND RELATED SCIENCES 03.06 WILDLIFE AND WILDLANDS MANAGEMENT 03.99 CONSERVATION AND RENEWABLE NATURAL RESOURCES, OTHER
112 NUCLEAR ENGINEERING	14.23 NUCLEAR ENGINEERING	BIOLOGICAL SCIENCES
113 PETROLEUM ENGINEERING	14.25 PETROLEUM ENGINEERING	601 ANATOMY 26.0601 ANATOMY 51.1301 MEDICAL ANATOMY
114 ENGINEERING, N.E.C.	14.01 ENGINEERING, GENERAL 14.22 NAVAL ARCHITECTURE AND MARINE ENGINEERING 14.24 OCEAN ENGINEERING 14.29 ENGINEERING DESIGN 14.99 ENGINEERING, OTHER	602 BIOCHEMISTRY 26.0202 BIOCHEMISTRY 51.1302 MEDICAL BIOCHEMISTRY
PHYSICAL SCIENCES		603 BIOLOGY 26.01 BIOLOGY, GENERAL
201 ASTRONOMY	40.02 ASTRONOMY 40.03 ASTROPHYSICS	604 BIOMETRY AND EPIDEMIOLOGY 26.0614 BIOMETRICS 26.0615 BIOSTATISTICS 51.1303 MEDICAL BIOMATHMATICS AND BIOMETRICS 51.2203 EPIDEMIOLOGY
202 CHEMISTRY	40.05 CHEMISTRY (SEE ALSO 602) 40.0507 POLYMER CHEMISTRY	605 BIOPHYSICS 26.0203 BIOPHYSICS 51.1304 MEDICAL BIOPHYSICS/PHYSICS
203 PHYSICS	40.08 PHYSICS (SEE ALSO 605) 40.0807 OPTICS 40.0809 ACOUSTICS	606 BOTANY 26.03 BOTANY (EXCLUDING 26.05 MICROBIOLOGY/BACTERIOLOGY—SEE 611) 26.0305 PLANT PATHOLOGY 26.0307 PLANT PHYSIOLOGY
204 PHYSICAL SCIENCES, N.E.C.	40.01 PHYSICAL SCIENCES, GENERAL 40.0799 MISCELLANEOUS PHYSICAL SCIENCES, OTHER 40.99 PHYSICAL SCIENCES, OTHER	607 CELL AND MOLECULAR BIOLOGY 26.04 CELL AND MOLECULAR BIOLOGY 26.0401 CELL BIOLOGY 26.0402 MOLECULAR BIOLOGY 51.1305 MEDICAL CELL BIOLOGY 51.1309 MEDICAL MOLECULAR BIOLOGY

608 ECOLOGY 26.0603 ECOLOGY	908 SOCIOLOGY 45.05 DEMOGRAPHY AND POPULATION STUDIES 45.11 SOCIOLOGY
609 ENTOMOLOGY AND PARASITOLOGY 26.0610 PARASITOLOGY 26.0702 ENTOMOLOGY	909 SOCIOLOGY/ANTHROPOLOGY
610 GENETICS 26.0613 GENETICS, PLANT AND ANIMAL 26.0617 EVOLUTIONARY BIOLOGY 51.1306 MEDICAL GENETICS	910 SOCIAL SCIENCES, N.E.C. 04.03 CITY/URBAN, COMMUNITY, AND REGIONAL PLANNING 04.07 ARCHITECTURAL URBAN DESIGN AND PLANNING 05 AREA, ETHNIC, AND CULTURAL STUDIES 30.11 GERONTOLOGY 43.01 CRIMINAL JUSTICE AND CORRECTIONS 44.02 COMMUNITY ORGANIZATION, RESOURCES, AND SERVICES 45.01 SOCIAL SCIENCES, GENERAL 45.04 CRIMINOLOGY 45.12 URBAN AFFAIRS/STUDIES 45.99 SOCIAL SCIENCES, OTHER
611 MICROBIOLOGY, IMMUNOLOGY, AND VIROLOGY 26.05 MICROBIOLOGY/BACTERIOLOGY 26.0618 BIOLOGICAL IMMUNOLOGY 26.0619 VIROLOGY 51.1308 MEDICAL MICROBIOLOGY	HEALTH FIELDS (SEE ALSO 103)
612 NUTRITION 19.05 FOODS AND NUTRITION STUDIES 26.0609 NUTRITIONAL SCIENCES 51.1311 MEDICAL NUTRITION	701 ANESTHESIOLOGY 51.1604 NURSING ANESTHETIST (POST-R.N.)
613 PATHOLOGY 26.0704 PATHOLOGY, HUMAN AND ANIMAL 51.1312 MEDICAL PATHOLOGY	702 CARDIOLOGY
614 PHARMACOLOGY 26.0612 TOXICOLOGY 26.0705 PHARMACOLOGY, HUMAN AND ANIMAL 51.1314 MEDICAL TOXICOLOGY	703 ONCOLOGY/CANCER RESEARCH
615 PHYSIOLOGY 26.0706 PHYSIOLOGY, HUMAN AND ANIMAL 51.1313 MEDICAL PHYSIOLOGY	704 ENDOCRINOLOGY
616 ZOOLOGY 26.07 ZOOLOGY	705 GASTROENTEROLOGY
617 BIOSCIENCES, N.E.C. 26.0616 BIOTECHNOLOGY RESEARCH 26.0699 MISCELLANEOUS BIOLOGICAL SPECIALIZATIONS, OTHER 26.99 BIOLOGICAL SCIENCES/LIFE SCIENCES, OTHER 30.01 BIOLOGICAL AND PHYSICAL SCIENCES 30.10 BIOPSYCHOLOGY	706 HEMATOLOGY
PSYCHOLOGY	707 NEUROLOGY 26.0608 NEUROSCIENCE
801 PSYCHOLOGY, COMBINED 42.01 PSYCHOLOGY, GENERAL	708 OBSTetrics AND GYNECOLOGY
802 PSYCHOLOGY, EXCEPT CLINICAL 42.03 COGNITIVE PSYCHOLOGY AND PSYCHOLINGUISTICS 42.04 COMMUNITY PSYCHOLOGY 42.07 DEVELOPMENTAL AND CHILD PSYCHOLOGY 42.08 EXPERIMENTAL PSYCHOLOGY 42.09 INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY 42.11 PHYSIOLOGICAL PSYCHOLOGY/PSYCHOBIOLOGY 42.16 SOCIAL PSYCHOLOGY 42.17 SCHOOL PSYCHOLOGY 42.99 PSYCHOLOGY, OTHER 51.2301 ART THERAPY 51.2303 HYPNOTHERAPY 51.2705 PSYCHOANALYSIS	709 OPHTHALMOLOGY 51.1701 OPTOMETRY (O.D.)
803 CLINICAL PSYCHOLOGY 42.02 CLINICAL PSYCHOLOGY	710 OTORHINOLARYNGOLOGY
SOCIAL SCIENCES	711 PEDIATRICS
901 AGRICULTURAL ECONOMICS 01.0101 AGRICULTURAL BUSINESS AND MANAGEMENT, GENERAL 01.0102 AGRICULTURAL BUSINESS/AGRICULTURE OPERATIONS 01.0103 AGRICULTURAL ECONOMICS	712 PREVENTIVE MEDICINE AND COMMUNITY HEALTH 51.22 PUBLIC HEALTH 51.2202 ENVIRONMENTAL HEALTH
902 ANTHROPOLOGY (CULTURAL AND SOCIAL) 45.02 ANTHROPOLOGY 45.03 ARCHAEOLOGY	713 PSYCHIATRY 51.1610 NURSING, PSYCHIATRY/MENTAL HEALTH (POST-R.N.)
903 ECONOMICS 45.06 ECONOMICS 52.06 BUSINESS/MANAGERIAL ECONOMICS	714 PULMONARY DISEASE
904 GEOGRAPHY 45.0701 GEOGRAPHY 45.0702 CARTOGRAPHY	715 RADIOLOGY 26.0611 RADIATION BIOLOGY/RADIOBIOLOGY
905 HISTORY AND PHILOSOPHY OF SCIENCE 45.0804 HISTORY AND PHILOSOPHY OF SCIENCE	716 SURGERY
906 LINGUISTICS 16.0102 LINGUISTICS	717 CLINICAL MEDICINE, N.E.C. 51.1399 MEDICAL BASIC SCIENCES, OTHER 51.1201 MEDICINE (M.D.) 51.14 MEDICAL CLINICAL SCIENCES (M.S., Ph.D.) 51.19 OSTEOPATHIC MEDICINE (D.O.) 51.21 PODIATRY (D.P.M., D.P., Pod.D.)
907 POLITICAL SCIENCE/PUBLIC ADMINISTRATION 44.04 PUBLIC ADMINISTRATION 44.05 PUBLIC POLICY ANALYSIS 44.99 PUBLIC ADMINISTRATION AND SERVICES, OTHER 45.09 INTERNATIONAL RELATIONS AND AFFAIRS 45.10 POLITICAL SCIENCE AND GOVERNMENT	718 DENTAL SCIENCES 51.04 DENTISTRY (D.S., D.M.D.) 51.05 DENTAL CLINICAL SCIENCES/GRAD. DENTISTRY (M.S., Ph.D.)
	719 NURSING 51.16 NURSING (EXCLUDING 51.1610, NURSING, PSYCHIATRY/MENTAL HEALTH—SEE 713, AND 51.1604 NURSING ANESTHETIST— SEE 701)
	720 PHARMACEUTICAL SCIENCES 51.20 PHARMACY
	721 VETERINARY SCIENCES 51.24 VETERINARY MEDICINE (D.V.M.) 51.25 VETERINARY CLINICAL SCIENCES (M.S., Ph.D.)
	722 HEALTH-RELATED, N.E.C. 31.0505 EXERCISE SCIENCE/PHYSIOLOGY AND MOVEMENT STUDIES 51.2306 OCCUPATIONAL THERAPY 51.2308 PHYSICAL THERAPY 51.2399 REHABILITATION/therAPEUTIC SERVICES, OTHER 51.2704 NATUROPATHIC MEDICINE 51.99 HEALTH PROFESSIONS AND RELATED SCIENCES, OTHER
	723 COMMUNICATION DISORDERS SCIENCES 51.02 COMMUNICATION DISORDERS SCIENCES AND SERVICES 51.0201 COMMUNICATION DISORDERS, GENERAL 51.0202 AUDIOLOGY/HEARING SCIENCES 51.0203 SPEECH-LANGUAGE PATHOLOGY 51.0204 SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

N.E.C. = not elsewhere classified

REV. 9-97

**LIST OF DOCTORATE-GRANTING AND
MASTER'S-GRANTING INSTITUTIONS**

Technical Table II-1. Doctorate-granting institutions in the fall 1997 NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

FICE code	State, institution, and school	FICE code	State, institution, and school		
Alabama					
001002 H	Alabama A&M University	001319	School of Medicine		
008695 L	Auburn University Graduate School (Main Campus) Graduate School at Montgomery	001320	University of Calif at San Francisco		
001052	University of Alabama at Birmingham, The Graduate School School of Medicine	001321	University of Calif at Santa Barbara		
001055	University of Alabama in Huntsville, The	001314	University of Calif at Santa Cruz		
001051	University of Alabama, The	001315	University of California, Irvine		
001057	University of South Alabama College of Medicine Graduate School	001216	College of Medicine		
029094	Alaska	010395	Graduate School		
L	University of Alaska Fairbanks	001328	School of Medicine		
Arizona					
001081	Arizona State University	001348	University of Southern California		
001082	Northern Arizona University	001350	Graduate School		
001083 L	University of Arizona College of Medicine Graduate School	008717	School of Medicine		
Arkansas					
001109	University of Arkansas - Med Sci Campus	001371	University of La Verne		
001108 L	University of Arkansas Main	001349	University of San Diego		
California					
001122	Biola University	001416	University of San Francisco		
009844	Cal Sch of Prof Psych Berkeley/Alameda	008718	University of Santa Barbara		
011881	Calif Sch of Prof Psych - Fresno	001422	Graduate School		
010013	Calif Sch of Prof Psych - Los Angeles	001424	Health Center		
011117	Calif Sch of Prof Psych - San Diego	001426	University of Colorado		
012154	California Institute of Integral Studies	001427	Graduate School at Boulder		
001131	California Institute of Technology	001428	Graduate School at Colorado Springs		
001139	California State University, Long Beach	001429	Graduate School at Denver		
000166	Charles R. Drew Univ of Medicine & Sci	001430	Health Sciences Center		
001169	Clairemont Graduate School	001371	University of Denver		
029092	Fielding Institute, The	001349	University of Northern Colorado		
001200	Fuller Theological Seminary	Connecticut			
001205	Golden Gate University	001416	University of Bridgeport		
001218	Loma Linda University Graduate School School of Medicine	008718	University of Connecticut		
029225	Pacific Graduate School of Psychology	001422	Graduate School		
001264	Pepperdine University	001424	Health Center		
010441	RAND Graduate School of Policy Studies	001426	Yale University		
001151	San Diego State University	001427	Graduate School		
001326	Santa Clara University	001428	School of Medicine		
001305	Stanford University Graduate School School of Medicine	001429	School of Nursing		
001158	US International University	001431	University of Hartford		
001310	US Naval Postgraduate School	001432	Wesleyan University		
001312 L	University of Calif at Berkeley	001426	Yale University		
001313 L	University of Calif at Davis	001445	Graduate School		
001316 L	University of Calif at Riverside	001446	School of Medicine and Health Sciences		
001317 L	University of Calif at San Diego Graduate School	001447	Georgetown University		
		001448 H	Graduate School		
			School of Medicine		
			College of Medicine		
			Graduate School		
Delaware					
District of Columbia					
001431	L University of Delaware	001434	American University		
		001437	Catholic University of America		
		001444	George Washington University		
		001445	Graduate School		
		001446	School of Medicine and Health Sciences		
		001447	Georgetown University		
		001448	Graduate School		
			School of Medicine		
			College of Medicine		
			Graduate School		

KEY: H = Historically black college or university
L = Land grant institution

Technical Table II-1. Doctorate-granting institutions in the fall 1997 NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

FICE code	State, institution, and school	FICE code	State, institution, and school
Florida			
001480 H	L Florida A&M University	009800	Rush University
001481	Florida Atlantic University	001758	Southern Illinois Univ at Carbondale
001469	Florida Institute of Technology	001775	L Univ of Illinois at Urbana-Champaign
009635	Florida International University	001774	University of Chicago
001489 L	Florida State University		Graduate School
001509	Nova Southeastern University	001776	L University of Illinois at Chicago
003954	University of Central Florida		Indiana
001535 L	University of Florida	001786	Ball State University
	College of Medicine	001807	Indiana State University
	College of Nursing	008731	Indiana University
	Graduate School		Graduate School-Bloomington
001536	University of Miami		Indiana Univ-Purdue Univ at Fort Wayne
	Graduate School		Indiana University-Purdue University
	School of Medicine		School of Dentistry
001537	University of South Florida		School of Medicine
	College of Medicine	008732	L Purdue University
	Graduate School		Graduate School
Georgia			
001559 H	Clark Atlanta University	001840	Purdue University Calumet
001564	Emory University		University of Notre Dame
	Graduate School		Iowa
	School of Medicine	001869	L Iowa State University
008723	Georgia Institute of Technology	011113	Maharishi University of Management
001574	Georgia State University	001855	Univ of Osteopathic Med & Health Sci
005010	Institute of Paper Science & Technology	001892	University of Iowa
001579	Medical College of Georgia		College of Medicine
008724	Mercer University		Graduate School
	Graduate School	001890	University of Northern Iowa
	School of Medicine		Kansas
	Southern School of Pharmacy		
029297 H	Morehouse School of Medicine	001928	L Kansas State University
001598 L	University of Georgia	029001	University of Kansas
			Graduate School
		001950	Medical Center
Hawaii			
001610 L	University of Hawaii at Manoa		Wichita State University
	Graduate School		Kentucky
	John A. Burns School of Medicine	001960	Spalding University
Idaho			
001620	Idaho State University	008744	L University of Kentucky
001626 L	University of Idaho		College of Medicine
Illinois			
029230	Chicago School of Prof Psych	001999	Graduate School
001671	DePaul University		School of Medicine
001659	Finch U of Hlth Sci/The Chicago Med Sch		Louisiana
001691	Illinois Institute of Technology	008745	L Louisiana State University
001692	Illinois State University		Medical Center at New Orleans
001710	Loyola University of Chicago		School of Medicine in Shreveport
	Graduate School		The Graduate School in Baton Rouge
	Graduate School at the Medical Center		University of New Orleans
	Stritch School of Medicine	002008	Louisiana Tech University
001657	Midwestern University	002020	Northeast Louisiana University
001737	Northern Illinois University	002029	Tulane University
001739	Northwestern University		Graduate School
	Graduate School		
	Medical School		

KEY: H = Historically black college or university
L = Land grant institution

Technical Table II-1. Doctorate-granting institutions in the fall 1997 NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

FICE code	State, institution, and school	FICE code	State, institution, and school
Louisiana, continued			
002031	School of Medicine School of Public Health & Tropical Med	002292	Michigan Technological University
002032 H	University of Southwestern Louisiana Xavier University of Louisiana	002307	Oakland University
		002323	University of Detroit Mercy
		009091	University of Michigan Graduate School at Ann Arbor Graduate School at Dearborn Medical School at Ann Arbor
Maine			
002053	L University of Maine	002329	Wayne State University
002050	University of New England College of Health Professions College of Osteopathic Medicine	002330	Graduate School School of Medicine Western Michigan University
Maryland			
002077	Johns Hopkins University Graduate School School of Hygiene and Public Health School of Medicine	010337	Mayo Graduate School
029169	Uniformed Serv Univ of the Hlth Sciences	008761	L University of Minnesota Duluth School of Medicine Graduate School at Duluth
002105	L Univ of Maryland - Baltimore County		Graduate School at Minneapolis Minneapolis Medical School
002103	L University of Maryland - College Park	025042	Walden University
002106 H	University of Maryland Eastern Shore		
002104	L University of Maryland at Baltimore		
Massachusetts			
002114	American International College	002410 H	Jackson State University
002128	Boston College	002423	L Mississippi State University
002130	Boston University Graduate School School of Dentistry School of Medicine School of Public Health	008764	University of Mississippi Graduate School School of Medicine
002133	Brandeis University	002441	University of Southern Mississippi
002139	Clark University		
002146	Emerson College		
002155	Harvard University Graduate School of Arts & Sciences Harvard Medical School School of Public Health	029239	Forest Institute of Professional Psych
002165	Mass College of Pharmacy/Allied Health	002477	Kirkville College of Osteopathic Med
002178	L Massachusetts Institute of Technology	008766	Saint Louis University Graduate School School of Medicine
002199	Northeastern University	002474	University of Health Sciences, The
002209	Smith College	002516	L University of Missouri-Columbia Graduate School School of Medicine
002219	Tufts University Graduate School Sackler Sch of Grad Biomedical Sciences School of Medicine School of Nutrition	002518	L University of Missouri-Kansas City
008755	L University of Massachusetts Univ of Massachusetts at Amherst Univ of Massachusetts at Worcester University of Massachusetts Boston	002517	L University of Missouri-Rolla
002161	University of Massachusetts Lowell	002519	L University of Missouri-St. Louis
002230	Woods Hole Oceanographic Institution	002520	Washington University Graduate School School of Medicine
002233	Worcester Polytechnic Institute		
Michigan			
002238	Andrews University		
002243	Central Michigan University		
002290	L Michigan State University		
Montana			
		002532	L Montana State University-Bozeman
		002536	University of Montana
Nebraska			
		002542	Creighton University Graduate School School of Medicine
		002565	University of Nebraska - Lincoln
		002554	L University of Nebraska - Omaha
		006895	University of Nebraska Medical Center

KEY: H = Historically black college or university
L = Land grant institution

Technical Table II-1. Doctorate-granting institutions in the fall 1997 NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

FICE code	State, institution, and school	FICE code	State, institution, and school
Nevada			
002569	University of Nevada at Las Vegas		
002568 L	University of Nevada, Reno Graduate School School of Medical Sciences	002780	Westchester Center
		008782	New School for Social Research
			New York Institute of Technology
		002784	Graduate School
			New York College of Osteopathic Med
			New York Medical College
New Hampshire			
002573	Dartmouth College Graduate School School of Medicine	002785	Graduate School of Health Sciences
002589 L	University of New Hampshire		New York University
			Graduate School
			School of Medicine
			Wagner Graduate School of Public Service
New Jersey			
008770	Fairleigh Dickinson University	008784	Pace University
002621	New Jersey Institute of Technology	002796	Polytechnic University
002627	Princeton University	002803	Rensselaer Polytechnic Institute
008771 L	Rutgers the State Univ of New Jersey Graduate School at Camden Graduate School at New Brunswick Graduate School at Newark School of Criminal Justice	002806	Rochester Institute of Technology
		002840	SUNY Health Science Center at Syracuse
		002851	SUNY College of Env Science and Forestry
002632	Seton Hall University	009929	SUNY College of Optometry
002639	Stevens Institute of Technology	002839	SUNY Health Science Center at Brooklyn
002620	Univ of Med and Dentistry of New Jersey Grad Sch of Biomed Sci/NJ Med School New Jersey Medical School at Newark New Jersey School of Osteopathic Med Robert Wood Johnson Medical School	002835	SUNY at Albany
		002836	SUNY at Binghamton
		009554	SUNY at Buffalo
			Graduate School
			School of Medicine
		009555	SUNY at Stony Brook
			Graduate School
			School of Medicine
		002823	Saint John's University
		008789	Syracuse University
		003979	Teachers College, Columbia University
		002807	The Rockefeller University
		002889	Union College
		002894	University of Rochester
			Graduate School
			School of Medicine and Dentistry
		002903	Yeshiva University
			Albert Einstein College of Medicine
			Graduate School
New Mexico			
002654	New Mexico Institute of Mining and Tech		North Carolina
008773 L	New Mexico State University	002920	Duke University
002663	University of New Mexico Graduate School School of Medicine		Graduate School
			School of Medicine
		002923	East Carolina University
			Graduate School
			School of Medicine
002666	Adelphi University	002972	L North Carolina State University
002887	Albany Medical College	002974	Univ of North Carolina at Chapel Hill
008775	Alfred University		Graduate School
004063	CUNY Graduate School and Univ Center		School of Medicine
007022	CUNY Herbert H. Lehman College		
002689	CUNY Hunter College		
007026	CUNY Mt. Sinai School of Medicine		
002699	Clarkson University		
002707	Columbia Univ in the City of New York College of Physicians and Surgeons		
	Graduate School		
008779 L	Cornell University Graduate School Graduate School of Medical Sciences	002976	Univ of North Carolina at Greensboro
	Medical College	002978	Wake Forest University
002722	Fordham University		Graduate School
002732	Hofstra University		School of Medicine
008780	Long Island University Brentwood Center		
	Brooklyn Center		
	C. W. Post Center		
	Rockland Campus		
North Dakota			
		009266 L	North Dakota State University
		008794	University of North Dakota

KEY: H = Historically black college or university
L = Land grant institution

Technical Table II-1. Doctorate-granting institutions in the fall 1997 NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

FICE code	State, institution, and school	FICE code	State, institution, and school
Ohio			
003009	Air Force Institute of Technology		School of Medicine
008795	Antioch University		School of Pharmacy
008796	Bowling Green State University	003278	Thomas Jefferson University
003024	Case Western Reserve University Graduate School School of Medicine	003378	University of Pennsylvania Graduate School School of Medicine
003032	Cleveland State University	008815	University of Pittsburgh Graduate School School of Medicine
008799	Kent State University		
007737	Medical College of Ohio	003388	Villanova University
008800	Miami University (OH)	029291	Widener University
008802	L Ohio State University College of Medicine & Public Health Graduate School		Rhode Island
008803	Ohio University College of Osteopathic Medicine Graduate College	003401	Brown University
010923	Union Institute	003414	L University of Rhode Island
012310	University of Akron		South Carolina
008805	University of Cincinnati College of Medicine Graduate School	003425	L Clemson University
003127	University of Dayton	003438	Medical University of South Carolina
003131	University of Toledo	008819	University of South Carolina Graduate School Medical School
009167	Wright State University		South Dakota
Oklahoma			
008806	L Oklahoma State University	003470	South Dakota School of Mines and Tech
008807	University of Oklahoma Graduate College Health Sciences Center	003471	L South Dakota State University
003185	University of Tulsa	003474	University of South Dakota Graduate School School of Medicine
Oregon			
008856	Oregon Grad Inst of Science & Technology	003487	East Tennessee State University
004882	Oregon Health Sciences University	003506 H	Meharry Medical College
003210	L Oregon State University	003510	Middle Tennessee State University
003212	Pacific University	003522 H	Tennessee State University
003216	Portland State University	003523	Tennessee Technological University
003223	University of Oregon	003509	University of Memphis
Pennsylvania			
003271	Allegheny Univ. of the Health Sciences	003530	L University of Tennessee at Knoxville
003237	Bryn Mawr College	006725	L University of Tennessee, Memphis
003242	Carnegie Mellon University	003535	Vanderbilt University Graduate School School of Medicine
003256	Drexel University		Tennessee
003258	Duquesne University Bayer School of Nat. & Env. Sciences Grad School of Liberal Arts & Sciences Mylan School of Pharmecuetical Sciences School of Nursing	004948	Baylor College of Dentistry
008810	Indiana University of Pennsylvania	004949	Baylor College of Medicine
003289	Lehigh University	003545	Baylor University
008813	L Pennsylvania State University College of Medicine Graduate School	003581	Lamar University
003352	Philadelphia Col of Osteopathic Med	003604	Rice University
003353	Philadelphia Coll of Pharmacy and Sci	003606	Sam Houston State University
003371	Temple University Graduate School	003613	Southern Methodist University
		003615	Southwest Texas State University
		003624	Stephen F. Austin State University
		003632	L Texas A&M University
		003565	Texas A&M University-Commerce
		003639	Texas A&M University-Kingsville
		003636	Texas Christian University
Texas			

KEY: H = Historically black college or university
L = Land grant institution

Technical Table II-1. Doctorate-granting institutions in the fall 1997 NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

FICE code	State, institution, and school	FICE code	State, institution, and school
Texas, continued			
003644	Texas Tech University Graduate School Health Science Center	003827	L West Virginia University
003646	Texas Woman's University		Wisconsin
009768	U of North TX Hlth Sci Ctr at Ft Worth	003863	Marquette University
003659	Univ of Texas Hlth Sci Ctr San Antonio	008296	Medical College of Wisconsin
011618	Univ of Texas Hlth Sci Ctr at Houston	003895	L University of Wisconsin-Madison Graduate School Medical School
003657	Univ of Texas M.D. Anderson Cancer Ctr	003896	University of Wisconsin-Milwaukee
004952	Univ of Texas Med Branch at Galveston		
003660	Univ of Texas SW Medical Ctr at Dallas		
003652	University of Houston		
003594	University of North Texas		Wyoming
003656	University of Texas at Arlington	003932	L University of Wyoming
003658	University of Texas at Austin		
009741	University of Texas at Dallas		
003661	University of Texas at El Paso		Puerto Rico
Utah			
012305	Brigham Young University	010724	Caribbean Center for Advanced Studies
003675	University of Utah Graduate School School of Medicine	029268	Ponce School of Medicine
003677	L Utah State University	003936	The Pontifical Cath Univ of Puerto Rico
		003944	L Univ of Puerto Rico Mayaguez Campus
		007108	L Univ of Puerto Rico Rio Piedras Campus
		003945	L University of Puerto Rico Med Sci Campus
Vermont			
003696	L University of Vermont College of Medicine Graduate School		
Virginia			
008828	College of William and Mary		
010338	Eastern Virginia Medical School		
003749	George Mason University		
003714 H	Hampton University		
003717	Institute of Textile Technology		
003721	James Madison University		
003728	Old Dominion University		
003745	University of Virginia Graduate School School of Medicine		
003735	Virginia Commonwealth University Graduate School Medical College of Virginia		
003754	L Virginia Polytechnic Inst and State Univ		
Washington			
003798	University of Washington Graduate School School of Medicine School of Public Health and Comm Med		
003800	L Washington State University		
West Virginia			
003815	Marshall University Graduate School School of Medicine		
011245	West Virginia School of Osteopathic Med		

KEY: H = Historically black college or university
L = Land grant institution

Technical Table II-2. Master's-granting institutions in the fall 1997 NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

FICE code	State, institution, and school	FICE code	State, institution, and school
Alabama			
001005 H	Alabama State University	001380	Western Connecticut State University
001020	Jacksonville State University		
001049	Troy State University in Montgomery		
001050 H	Tuskegee University		
001004	University of Montevallo	001428 H L	Delaware Delaware State University
Alaska			
029095	University of Alaska Anchorage	001443	Gallaudet University
029096	University of Alaska Southeast	029100 H L	University of the District of Columbia
Arkansas			
008701	Arkansas State University	001479	Embry-Riddle Aeronautical University
001101	University of Arkansas at Little Rock	003955	University of West Florida
001092	University of Central Arkansas		
California			
001117	Azusa Pacific University	001552	Augusta State University
001143	Calif Poly State Univ, San Luis Obispo	001602	Georgia College and State University
001141	Calif State Univ at Dominguez Hills	001572	Georgia Southern University
001137	Calif State Univ at Fullerton	001601	State University of West Georgia
001140	Calif State Univ at Los Angeles	001599	Valdosta State University
001150	Calif State University at Sacramento		
001157	Calif State University, Stanislaus		
001144	California State Poly University, Pomona	001641	Bradley University
007993	California State Univ - Bakersfield	001694	Chicago State University
001142	California State Univ, San Bernadino	001674	Eastern Illinois University
001146	California State University, Chico	009145	Governors State University
001147	California State University, Fresno	001693	Northeastern Illinois University
001138	California State University, Hayward	001749	Roosevelt University
001153	California State University, Northridge	001759	Southern Illinois Univ at Edwardsville
001164	Chapman University	009333	University of Illinois at Springfield
001196	Dominican College of San Rafael	001780	Western Illinois University
001171	Harvey Mudd College		
001149	Humboldt State University		
004484	John F Kennedy University		
011649	Loyola Marymount University	001788	Butler University
011460	National University	001822	Indiana Wesleyan University
001249	Occidental College	001830	Rose-Hulman Institute of Technology
001257	Pacific States University	001832	Saint Francis College
001154	San Francisco State University	001795	University of Evansville
001155	San Jose State University	001842	Valparaiso University
001156	Sonoma State University		
001322	University of Redlands		
001325	University of San Francisco		
Colorado			
023562	National Technological University	001860	Drake University
Connecticut			
001378	Central Connecticut State University	001927	Emporia State University
001379	Connecticut College	001915	Fort Hays State University
001402	Quinnipiac College	001926	Pittsburg State University
002804	Rensselaer at Hartford	001949	Washburn University of Topeka
001406	Southern Connecticut State University		
001409	St. Joseph College		
001414	Trinity College	001963	Kentucky Eastern Kentucky University
001397	University of New Haven	001976	Morehead State University
Kansas			
Kentucky			
Louisiana			
Massachusetts			
Michigan			
Minnesota			
Mississippi			
Missouri			
Montana			
Nebraska			
Nevada			
New Hampshire			
New Jersey			
New Mexico			
New York			
North Carolina			
North Dakota			
Ohio			
Oklahoma			
Oregon			
Pennsylvania			
Rhode Island			
South Carolina			
South Dakota			
Tennessee			
Texas			
Utah			
Vermont			
Virginia			
Washington			
West Virginia			
Wisconsin			
Wyoming			

KEY: H = Historically black college or university
L = Land grant institution

Technical Table II-2. Master's-granting institutions in the fall 1997 NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

FICE code	State, institution, and school	FICE code	State, institution, and school
Kentucky, continued			Missouri, continued
001977	Murray State University	002503	Southwest Missouri State University
002002	Western Kentucky University	002495	Truman State University
Louisiana			Montana
002006 H	Grambling State University	002531	Montana Tech of the Univ of Montana
002016	Loyola University New Orleans		
002017	McNeese State University		Nebraska
002005	Nicholls State University	002551	University of Nebraska at Kearney
002021	Northwestern State University		
002024	Southeastern Louisiana University		New Hampshire
002025 H L	Southern University A & M, All Campuses		
Maryland			Rivier College
002068 H	Coppin State College		New Jersey
002072	Frostburg State University	002642	College of New Jersey, The
002076	Hood College	002622	Kean College of New Jersey
002078	Loyola College	002616	Monmouth University
002083 H	Morgan State University	002617	Montclair State University
002099	Towson University	002625	William Paterson U of NJ
002102	University of Baltimore		
002108	Washington College		New Mexico
Massachusetts			Eastern New Mexico University
002117	Anna Maria College	008772	New Mexico Highlands University
002118	Assumption College	002653	
002183	Bridgewater State College		New York
002185	Framingham State College		
029365	MGH Institute of Health Professions	004766	CUNY Bernard Baruch College
002192	Mount Holyoke College	002687	CUNY Brooklyn College
002188	Salem State College	002688	CUNY City College
002210	University of Massachusetts Dartmouth	029040	CUNY College of Staten Island
002226	Western New England College	002693	CUNY John Jay College of Crim Justice
002229	Williams College	002690	CUNY Queens College
002190	Worcester State College	002704	College of New Rochelle
Michigan			College of St Rose
002259	Eastern Michigan University	002705	
002268	Grand Valley State University	002710	Cooper Union
002301	Northern Michigan University	002737	Iona College
Minnesota			Ithaca College
002336	Bemidji State University	002739	Manhattan College
002360	Mankato State University	002758	Marist College
002367	Moorhead State University	002765	Niagara University
002380	Saint Mary's University of Minnesota	002788	Russell Sage College
002377	St. Cloud State University	002841	SUNY College at Brockport
Mississippi			SUNY College at Buffalo
002422	Mississippi University for Women	002842	SUNY College at Fredonia
Missouri			SUNY College at Geneseo
002454	Central Missouri State University	002845	SUNY College at Oneonta
002479 H L	Lincoln University	002847	SUNY College at Oswego
002496	Northwest Missouri State University	002848	SUNY College at Plattsburgh
002501	Southeast Missouri State University	002849	
			SUNY College at Potsdam
			SUNY Inst of Technology at Utica-Rome
			SUNY at New Paltz
			Sarah Lawrence College
			St. Bonaventure University
			Vassar College
			Wagner College
			North Carolina
			Appalachian State University

KEY: H = Historically black college or university
L = Land grant institution

Technical Table II-2. Master's-granting institutions in the fall 1997 NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

FICE code	State, institution, and school	FICE code	State, institution, and school
North Carolina, continued			
002905 H	L North Carolina A&T State University	003541	Angelo State University
002950 H	North Carolina Central University	003592	Midwestern State University
002975	Univ of North Carolina at Charlotte	003630 H L	Prairie View A&M University
002984	University of North Carolina/Wilmington	003623	St. Mary's University
002981	Western Carolina University	003625	Sul Ross State University
Ohio		003631	Tarleton State University
003050	John Carroll University	011161	Texas A&M University-Corpus Christi
003144	Xavier University	003642 H	Texas Southern University
003145	Youngstown State University	003647	Trinity University
Oklahoma		011854	University of Central Texas
003154	East Central University	013231	University of Houston - Victoria
003161	Northeastern State University	011711	University of Houston Clear Lake
003181	Southwestern Oklahoma State University	003578	University of Incarnate Word
Oregon		010115	University of Texas at San Antonio
003219	Southern Oregon State College	029164	University of Texas at Tyler
003224	University of Portland	009930	University of Texas of the Permian Basin
Pennsylvania		003599	University of Texas-Pan American
003315	Bloomsburg University of Pennsylvania	003665	West Texas A&M University
003238	Bucknell University	Vermont	
003316	California University of Pennsylvania	003686	Goddard College
009234	Clarion University of Pennsylvania	003690	Marlboro College
003320	East Stroudsburg Univ of Pennsylvania	003691	Middlebury College
003321	Edinboro University of Pennsylvania	Virginia	
003266	Gannon University	003715	Hollins College
003322	Kutztown University of Pennsylvania	003732	Radford University
003324	Mansfield University of Pennsylvania	003744	University of Richmond
003296	Marywood College	003764 H L	Virginia State University
003325	Millersville University of Pennsylvania	Washington	
003326	Shippensburg University of Pennsylvania	003771	Central Washington University
003327	Slippery Rock University of Pennsylvania	003775	Eastern Washington University
003367	St Joseph's University	003778	Gonzaga University
003370	Swarthmore College	003785	Pacific Lutheran University
003384	University of Scranton	003794	Saint Martin's College
003328	West Chester University of Pennsylvania	003790	Seattle University
003394	Wilkes University	003799	Walla Walla College
Rhode Island		003802	Western Washington University
003407	Rhode Island College	003804	Whitworth College
South Carolina		West Virginia	
003428	College of Charleston	003818	University of Charleston
003434	Furman University	003825	West Virginia University Institute of Te
003456	Winthrop University	Wisconsin	
Tennessee		003868	Milwaukee School of Engineering
003478	Austin Peay State University	003917	University of Wisconsin-Eau Claire
003490 H	Fisk University	003899	University of Wisconsin-Green Bay
003529 L	University of Tennessee at Chattanooga	003919	University of Wisconsin-La Crosse
Texas		009630	University of Wisconsin-Oshkosh
003537	Abilene Christian University	003921	University of Wisconsin-Platteville
KEY:		003923	University of Wisconsin-River Falls
H = Historically black college or university		003924	University of Wisconsin-Stevens Point
L = Land grant institution		003915	University of Wisconsin-Stout
		003926	University of Wisconsin-Whitewater

Technical Table II-2. Master's-granting institutions in the fall 1997 NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

FICE code	State, institution, and school
	Guam
003935	University of Guam

KEY: H = Historically black college or university
L = Land grant institution